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CANBERRA.

OFFICIAL

YEAR BOOK

OF THE

COMMONWEALTH OF AUSTRALIA

No. 47—1961.

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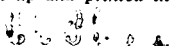
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PREFACE.

By the Constitution of the Commonwealth of Australia, the Parliament of the Commonwealth is empowered, subject to the Constitution, "to make laws for the peace, order, and good government of the Commonwealth, with respect to Census and statistics." In the exercise of the power so conferred, a "Census and Statistics Act" was passed in 1905, and in the year following the "Commonwealth Bureau of Census and Statistics" was created. The first Official Year Book was published early in 1908. The publication here presented is the forty-seventh Official Year Book issued under the authority of the Commonwealth Government.

The Synopsis on pp. xi to xxxi following shows the general arrangement of the work. The special index (preceding the General Index) provided at the end of the volume, together with certain references given in the various chapters, will assist in tracing in previous issues special articles and other more or less important miscellaneous matter which, owing to limitations of space, have been omitted or abbreviated in the present volume. Where, in the General Index, more than one reference to a subject is given, the chief reference (or references) has been specially indicated wherever possible.

Amongst the new matter included and existing matter revised in this volume, the following items may be especially mentioned:—

Chapter V.—The Territories of Australia.—Revised and enlarged section dealing with Native Labour in Papua and New Guinea (p. 136).

Chapters IX.—Population, and X.—Vital Statistics.—New sections showing International Statistics (pp. 329 and 374).

Chapter XII.—Labour, Wages and Prices.—Description of the Consumer Price Index (p. 408).

Chapter XIV.—Transport and Communication.—Detailed statement on registration of Motor Vehicles and Licensing of Drivers, etc., in each State and Territory as at 30th June, 1960 (p. 553).

Chapter XV.—Education.—Revised sections dealing with Schools (pp. 585–603).

Chapter XXVIII.—Defence.—Revised material dealing with Military Defence (p. 1096).

Appendix.—1961 Population Census—preliminary results (p. 1207); Survey of Wage Rates and Earnings, September, 1960—data concerning marginal rates of wage and total weekly earnings of adult male employees (p. 1214); Basic Wage Inquiry, 1961—precis of judgment (p. 1219).

The material in the Year Book has been carefully checked throughout, but I shall be grateful to those who will be kind enough to point out defects or make suggestions.

The statistics contained in the majority of the chapters of this volume relate to the years ended June or December, 1960, and the Appendix contains a selection of the more significant data which have become available since the chapters were prepared. As with previous Year Books, the contents of this issue have already been published in separate Parts as the successive chapters or groups of chapters were printed (for particulars *see* Price List of Publications at the end of this volume).

The most recent statistics published by this Bureau are contained in publications such as the *Digest of Current Economic Statistics* (monthly), the *Monthly Review of Business Statistics*, the *Quarterly Summary of Australian Statistics*, and in the other publications issued monthly, quarterly, half-yearly, or yearly, which are listed in § 2. *Statistical Publications of Australia*, Chapter XXXI.—Statistical Organization and Sources of Information.

My thanks are tendered to the Statisticians in each State, who have collected and compiled the data on which a great part of the information given in the Official Year Book is based. Thanks are also tendered to the responsible officers of the various Commonwealth and State Departments, and to others who have kindly, and often at considerable trouble, supplied information.

I also desire to express my keen appreciation of the valuable work performed by Mr. A. E. Callander, former Editor of Publications, Mr. J. M. Jones, B.A., the present Editor, Mr. E. H. Harry, B.A., B.Com., Mr. S. Burton, B.A., and Mr. W. H. D. Morris, B.Com., Assistant Editors, and the other officers of the Publications Division, and of the services rendered by the officers in charge of the several Branches of the Commonwealth Bureau of Census and Statistics upon whom has devolved the duty of revising the chapters relative to their respective Branches.

S. R. CARVER,
Commonwealth Statistician.

COMMONWEALTH BUREAU OF CENSUS AND STATISTICS,
Canberra, A.C.T., October, 1961.

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OFFICIAL YEAR BOOK

OF THE

COMMONWEALTH OF AUSTRALIA.

CHAPTER I.

DISCOVERY, COLONIZATION AND FEDERATION OF AUSTRALIA.

§ 1. Early Knowledge and Discovery of Australia.

1. **Introduction.**—The following paragraphs contain only a bare outline of the more important facts relating to the early history of Australian discovery. A more detailed summary of these facts may be found in Official Year Book No. 39 (*see p. 1*) and earlier issues.

2. **Terra Australis.**—There was, apparently, an early Chaldean tradition as to the existence of an Austral land to the south of India and rumours to that effect found their way in the course of time to Europe. References to this *Terra Australis* are found in the works of Ælianus (A.D. 205–234), Manilius (probably a contemporary of Augustus or Tiberius Caesar), and Ptolemy (A.D. 107–161). Evidence pointing to knowledge of such a land appeared in maps and manuscripts of the Middle Ages and the fourteenth and fifteenth centuries but there is no definite evidence connecting this so-called *Terra Australis* with Australia.

Reference by Marco Polo (1254–1324) to a land called Locac and several indications on maps and globes in the fifteenth and sixteenth centuries have been assumed to relate to Australia, but little weight can now be attached to these suppositions. Cornelius Wytfliet's map of 1597, however, indicates roughly the eastern and western coasts of Australia, as well as the Gulf of Carpentaria, although the oft-quoted passage in his *Descriptionis Prolemaicæ Augmentum* describing the *Australis Terra* has been considered to have had its origin in the voyages through the Straits of Magellan and the discovery of Tierra del Fuego rather than that of Australia.

3. **Discovery of Australia.**—(i) *The Spaniards.* Disregarding the suggestion, for which there is no evidence, that the Arabs had come to Australia long before the Portuguese, the Spaniards, or the Dutch, and apart from the possibility that the Portuguese may have discovered part of the Australian coast before 1542, the coastal exploration of Australia may be taken as having begun with the Spaniards and the Dutch.

In 1606, the Spaniard Quiros, on reaching the island that has retained the name of Espiritu Santo (the largest island of the New Hebrides group), thought he had discovered the great land of the south, and therefore named the group *La Australia del Espiritu Santo*. After leaving the New Hebrides, Quiros sailed eastward, but Torres, his second-in-command, took a westerly course and passed through the strait that now bears his name. In all probability he sighted the Australian continent, but no mention of it is made in his records. This voyage marks the close of Spanish activity in the work of discovery in the South Seas.

(ii) *The Dutch.* The Dutch discovered Australia when the Dutch East India Company sent the *Duyfken* from Bantam, Java, to explore the islands of New Guinea. During March, 1606, the *Duyfken* coasted along the southern shores of New Guinea and followed the west coast of Cape York peninsula as far as Cape Keer-Weer (Turn Again).

During the following thirty years, there were nine visits of Dutch navigators to Australian waters; by 1636, through their efforts, the coast of Australia from Cape York westward around to the Great Australian Bight had been discovered.

In 1642, Abel Janszoon Tasman set out from Batavia to ascertain the extent of the great southern continent. He named Van Diemen's Land, imagining it to be part of Australia proper, and sailing north-easterly discovered New Zealand and returned to Batavia. In his second voyage, in 1644, Tasman visited the northern coast of Australia, sailing round the Gulf of Carpentaria and along the north-west coast as far south as the tropic of Capricorn. This voyage of Tasman's may be said to have ended the period of Dutch discoveries, although there were subsequent visits by the Dutch to Australia (de Vlamingh in 1696 and Van Delft in 1705).

4. Discoveries by the English.—In the meantime, the English had made their first appearance on the Australian coast in 1688, when the north-westerly shores were visited by William Dampier, as supercargo of the *Cygnets*, a trading vessel whose crew had turned buccaneers. In 1699, he again visited Australia, in command of H.M.S. *Roebuck*, and on his return to England published an account in which a description is given of trees, flowers, birds and reptiles observed, and of encounters with natives.

At the end of the seventeenth century, it was uncertain whether Tasmania and New Zealand were parts of Australia or whether they were separated from it but themselves formed part of a great Antarctic Continent. Lieutenant (later Captain) James Cook's first voyage, though primarily undertaken for the purpose of observing the transit of Venus from Tahiti, had also the objective of ascertaining whether the unexplored part of the southern hemisphere was only an immense mass of water or contained another continent. In command of H.M.S. *Endeavour*, a barque of 370 tons burden carrying about 85 persons, and accompanied by Sir Joseph Banks the botanist, Dr. Solander the naturalist, Green the astronomer, draughtsmen and servants, Cook, after observing the transit of Venus at Tahiti, turned toward New Zealand, sighting that land on 7th October, 1769, in the neighbourhood of Poverty Bay. Circumnavigating the North and South Islands, he proved that New Zealand was connected neither with the supposed Antarctic Continent nor with Australia, and took formal possession thereof in the name of the British Crown. On 20th April, 1770, at 6 a.m., Cook sighted the Australian mainland at a place he called Point Hicks, naming it after his first-lieutenant, who first saw it. Coasting northwards, Botany Bay was discovered on 29th April, 1770. The *Endeavour* dropped anchor and Cook landed on the same day. Cook sailed along the coast in a northerly direction for nearly 1,300 miles until 11th June, 1770, when the *Endeavour* was seriously damaged by striking a coral reef in the vicinity of Trinity Bay. Repairs occupied nearly two months and the *Endeavour* then again set her course to the north, sailing through Torres Strait and anchoring in the Downs on 13th July, 1771. In 1772, Cook was put in command of the ships *Resolution* and *Adventure*, with a view to ascertaining whether a great southern continent existed. Having satisfied himself that, even if it did, it lay so far to the south as to be useless for trade and settlement, he returned to England in 1774. Cook's last voyage was undertaken in 1776, and he met his death on 14th February, 1779, by which date practically the whole coast of Australia had been explored. The only remaining discovery of importance was the existence of a channel between Tasmania and Australia. This was made by Bass and Flinders in 1798.

§ 2. The Annexation of Australia.

1. Annexation of the Eastern Part of Australia, 1770.—Although representatives of the nations mentioned in the previous section landed or claimed to have landed on the shores of Australia on various occasions during the sixteenth and seventeenth centuries, it was not until 23rd August, 1770, that the history of Australia was brought into definite political connexion with Western civilization. It was on that date that Captain Cook took possession "of the whole eastern coast, from latitude 38° S. to this place, latitude 104° S., in right of His Majesty King George the Third". Cook, however, proclaimed British sovereignty over only what are now the eastern parts of New South Wales and Queensland, and formal possession, on behalf of the British Crown, of the whole of the eastern part of the Australian continent and Tasmania was not taken until 26th January, 1788. It was on this last date that Captain Phillip's commission, first issued to him on 12th October, 1786, and amplified on 2nd April, 1787, was read to the people whom he had brought with him in the "Fleet".

A full historical account of the period referred to may be found in the *Historical Records of New South Wales*, Vol. I., parts 1 and 2.

2. **Original Extent of New South Wales.**—The commission appointed Phillip “Captain-General and Governor-in-Chief in and over our territory called New South Wales, extending from the Northern Cape or extremity of the coast called Cape York, in the latitude of ten degrees thirty-seven minutes south, to the southern extremity of the said territory of New South Wales or South Cape, in the latitude of forty-three degrees thirty-nine minutes south, and of all the country inland westward as far as the one hundred and thirty-fifth degree of east longitude reckoning from the meridian of Greenwich, including all the islands adjacent in the Pacific Ocean within the latitudes aforesaid of ten degrees thirty-seven minutes south and forty-three degrees thirty-nine minutes south”.

Although Captain Cook had taken possession of the North Island of New Zealand in November, 1769, and in January, 1770, of the South Island also, it is doubtful whether, at the time when Captain Phillip’s commission was drawn up, New Zealand was considered as one of the “islands adjacent in the Pacific Ocean”. The fact that under the Supreme Court Act (Imperial) of 1823 British residents in New Zealand were brought under the jurisdiction of the Court at Sydney, and that in 1839 there was a proposal on the part of the British Government to appoint a consul in New Zealand, would leave this an open question, as nothing more than extra-territorial jurisdiction may have been intended. Various hoistings of flags notwithstanding, New Zealand does not appear to have become British territory unequivocally until 1840. In that year, on 29th January, Captain Hobson arrived at the Bay of Islands. On the following day, he read the commission, which extended the boundaries of the Colony of New South Wales so as to embrace and comprehend the islands of New Zealand. On 5th February, the Treaty of Waitangi, made with the native chiefs, was signed. Finally, on 21st May, British sovereignty over the islands of New Zealand was explicitly proclaimed.

3. **Extension of New South Wales Westward, 1825.**—On 17th February, 1824, Earl Bathurst notified Sir Thomas Brisbane that he had recommended to His Majesty the dispatch of a ship of war to the north-west coast of New Holland for the purpose of taking possession of the coast between the western coast of Bathurst Island and the eastern side of Coburg Peninsula. Captain James J. Gordon Bremer of H.M.S. *Tamar*, who was selected for the purpose, took possession on 20th September, 1824, of the coast from the 135th to the 129th degree of east longitude. On 16th July, 1825, the whole territory between those boundaries was described in Darling’s commission as being within the boundaries of New South Wales, thus increasing its area by 518,134 square miles, and making it, including New Zealand and excluding Tasmania, 2,076,308 square miles, or also excluding New Zealand, 1,972,446 square miles.

4. **Annexation of Western Australia, 1827.**—An expedition under Major Lockyer, sent by Lieutenant-General Sir Ralph Darling, then Governor of New South Wales, to found a settlement at King George Sound, sailed from Sydney on 9th November, 1826, landed at the Sound on 26th December following, and on 21st January, 1827, hoisted the British flag. Captain Stirling, in command of H.M.S. *Success*, arrived at Sydney a few weeks after the departure of the expedition to King George Sound. He obtained the Governor’s permission to visit Swan River with a view to seizing a position on the western coast and reporting upon its suitability as a place of settlement. Captain Stirling left Sydney on 17th January, 1827, and on his return in the following April submitted a glowing report on what he described as a “rich and romantic country”, urging its occupation for the purpose of settlement. He left for England in July, 1827, continuing his advocacy— notwithstanding much discouragement—with unabated enthusiasm. He was at last successful, the result being mainly due to the formation of an association of prospective settlers having capital at their disposal. He was appointed Lieutenant-Governor and with a party of settlers arrived at Garden Island, near the Swan River, in the ship *Parmelia* in June, 1829. On the 2nd of the preceding month, Captain Fremantle, in command of H.M.S. *Challenge*, arrived and hoisted the British flag on the south head of Swan River, again asserting possession of “all that part of New Holland which is not included within the territory of New South Wales”. Thus, before the middle of 1829, the whole territory now known as the Commonwealth of Australia had been constituted a dependency of the United Kingdom.

§ 3. The Exploration of Australia.

A summary of the more important facts relating to the exploration of Australia was embodied in this Chapter in issues of the Official Year Book up to and including No. 22.

§ 4. The Creation of the Several Colonies.

1. **New South Wales.**—In Governor Phillip's commission of 1786, the mainland of Australia was divided by the 135th meridian of east longitude into two parts. The earliest colonists believed that the present State of Tasmania was actually joined to the mainland, and it was not until 1798 that the contrary was known. In that year, Bass and Flinders proved that it was an island by sailing through Bass Strait. The territory of New South Wales, as originally constituted, and of New Zealand, which may be included although Cook's annexation was not properly given effect to until 1840, consisted of 1,584,389 square miles. A further area of 518,134 square miles was added in 1825, when the western boundary was extended to the 129th east meridian. The territory was subsequently reduced by the separation of various areas to form the other colonies, and at the time of the establishment of the Commonwealth the area of New South Wales was 310,372 square miles.

Lord Howe Island, which is a dependency of New South Wales and for political purposes is included in one of the electorates of Sydney, is situated in latitude 31° 30' south, longitude 159° 5' east, about 436 miles north-east of Sydney, and has an area of 3,220 acres. The climate is mild and the rainfall abundant, but on account of the rocky formation of its surface only about 300 acres are suitable for cultivation, most of which are devoted to the production of *Kentia* palm seed. The land belongs to the Crown and is occupied rent-free on sufferance. Discovered in 1788, the Island was first settled by a small party of Maoris in 1853; afterwards a colony was settled from Sydney. A Board of Control at Sydney manages the affairs of the Island and supervises the palm seed industry. The population was 278 at the Census of 30th June, 1954.

2. **Tasmania.**—In 1825, Van Diemen's Land, as Tasmania was then called, was politically separated from New South Wales, being constituted a separate colony on 14th June of that year. The area of the colony was 26,215 square miles.

Macquarie Island, about 1,000 miles south-east of Hobart, together with a few rocky islets nearby, has been a dependency of Tasmania since the nineteenth century. In December, 1911, five members of the Australian National Antarctic Expedition landed on the island and remained there until 1915. On 3rd March, 1948, another party was landed to man a new station and this has since been maintained as a scientific base. The island is about 21 miles long and two miles wide.

3. **Western Australia.**—The territory westward of the 129th meridian, comprising 975,920 square miles, was constituted a colony under the name of Western Australia in June, 1829. It was always distinct and independent of New South Wales, except for the settlement on King George Sound (*see* p. 3), which remained under the jurisdiction of New South Wales until 1831.

4. **South Australia.**—On 15th August, 1834, the Act 4 and 5 William IV., cap. 95, was passed, creating South Australia a "province", and towards the end of the year 1836 settlement took place. The first Governor, Captain Hindmarsh, R.N., arrived at Holdfast Bay on 28th December, 1836, and on the same day the new colony was officially proclaimed. The new colony embraced 309,850 square miles of territory, lying south of the 26th parallel of south latitude and between the 141st and 132nd meridians of east longitude. On 10th December, 1861, by the authority of the Imperial Act 24 and 25 Vict., cap. 44, the western boundary of South Australia was extended to coincide with the eastern boundary of Western Australia, namely, the 129th east meridian. The area of the extension was approximately 70,220 square miles. Nearly two years later, on 6th July, 1863, the Northern Territory, comprising 523,620 square miles, was brought under the jurisdiction of South Australia, which thereupon controlled an area of 903,690 square miles.

5. **New Zealand.**—New Zealand, nominally annexed by Captain Cook and formally declared by proclamation in 1840 as a dependency of New South Wales, by letters patent of 16th November of that year was constituted a separate colony under the powers of the Act 3 and 4 Vict., cap. 62, of 7th August, 1840. Proclamation of the separation was made on 3rd May, 1841. The area of the colony was 103,862 square miles.

6. **Victoria.**—In 1851, what was known as the "Port Phillip District" of New South Wales was constituted the colony of Victoria, "bounded on the north and north-west by a straight line drawn from Cape Howe to the nearest source of the River Murray and thence by the course of that river to the eastern boundary of the colony of South Australia". The area of the new colony was 87,884 square miles, and its separate existence took effect from 1st July, 1851, upon the issuing of the writs for the first election of elective members of the Legislative Council.

7. **Queensland.**—The northern squatting districts of Moreton, Darling Downs, Burnett, Wide Bay, Maranoa, Leichhardt and Port Curtis, together with the reputed county of Stanley, were granted an independent administration and formed into a distinct colony

under the name of Queensland by letters patent dated 6th June, 1859, although separation from New South Wales was not completed until 10th December of the same year, upon the assumption of office of the first Governor. The territory comprised in the new colony was "so much of the colony of New South Wales as lies northwards of a line commencing on the sea-coast at Point Danger in latitude about $28^{\circ} 8'$ south, running westward along the Macpherson and Dividing Ranges and the Dumaresq River to the MacIntyre River, thence downward to the 29th parallel of south latitude, and following that parallel westerly to the 141st meridian of east longitude, which is the eastern boundary of South Australia, together with all the adjacent islands, their members, and appurtenances in the Pacific Ocean". The area of the colony thus constituted was 554,300 square miles. By letters patent dated 13th March, 1861, forwarded by the Colonial Secretary to the Governor of Queensland on 12th April, 1862, the area of Queensland was increased by the annexation of "so much of the colony of New South Wales as lies to the northward of the 26th parallel of south latitude, and between the 141st and 138th meridians of east longitude, together with all and every the adjacent islands, their members, and appurtenances, in the Gulf of Carpentaria." With this addition the area of Queensland became 670,500 square miles. Following a thorough revision of the area of each Local Government Area of Queensland, based on the most recent maps available, the Surveyor-General, in 1958, determined the area of Queensland as 667,000 square miles—a reduction of 3,500 square miles from the area previously determined.

§ 5. The Establishment of the Commonwealth of Australia.

1. General.—On 1st January, 1901, the colonies mentioned, with the exception of New Zealand, were federated under the name of the "Commonwealth of Australia," the designation of "Colonies"—except in the case of the Northern Territory, to which the designation "Territory" is applied—being at the same time changed to that of "States".

2. Transfer of the Northern Territory to the Commonwealth.—On 7th December, 1907, the Commonwealth and the State of South Australia entered into an agreement for the transfer of the Northern Territory to the Commonwealth, subject to approval by the Parliaments of the Commonwealth and the State. This approval was given by the South Australian Parliament under The Northern Territory Surrender Act 1907 (assented to on 14th May, 1908) and by the Commonwealth Parliament under the Northern Territory Acceptance Act 1910 (assented to on 16th November, 1910). The Territory was formally transferred to the Commonwealth on 1st January, 1911, and became the Northern Territory of Australia.

3. Transfer of the Australian Capital Territory to the Commonwealth.—On 18th October, 1909, the Commonwealth and the State of New South Wales entered into an agreement for the surrender to and acceptance by the Commonwealth of an area of 911 square miles as the Seat of Government of the Commonwealth. In December, 1909, Acts were passed by the Commonwealth and New South Wales Parliaments approving the agreement, and on 5th December, 1910, a proclamation was issued vesting the Territory in the Commonwealth on and from 1st January, 1911. By the Jervis Bay Territory Acceptance Act 1915, an area of 28 square miles at Jervis Bay, surrendered by New South Wales according to an agreement made in 1913, was accepted by the Commonwealth, and was transferred as from 4th September, 1915.

4. Present Composition of the Commonwealth.—Following the revision of the area of Queensland, as mentioned in § 4 above, the total area of the Commonwealth of Australia has been determined as 2,971,081 square miles. The dates of creation and the areas of its component States and Territories are shown below:—

THE COMMONWEALTH OF AUSTRALIA: AREA, ETC., OF COMPONENT STATES AND TERRITORIES.

State or Territory.	Year of Formation into Separate Colony or Territory.	Present Area in Square Miles.	State or Territory.	Year of Formation into Separate Colony or Territory.	Present Area in Square Miles.
New South Wales	1786	309,433	Northern Territory	1863	523,620
Victoria ..	1851	87,884	Australian Capital Territory ..	1911	939
Queensland ..	1859	667,000			
South Australia ..	1834	380,070			
Western Australia	1829	975,920	Commonwealth of		
Tasmania ..	1825	26,215	Australia ..	..	2,971,081

§ 6. *The Constitutions of the States and of the Commonwealth.*

1. **General.**—Information regarding the development of the Constitutions of the various Colonies (now States), together with a brief history of the Federal movement in Australia, was embodied in this Chapter in issues of the Official Year Book up to and including No. 22.

2. **Commonwealth Constitution Act.**—The Commonwealth of Australia Constitution Act, 63 and 64 Vict., Chapter 12, namely: “An Act to constitute the Commonwealth of Australia”, as amended by the Constitution Alteration (Senate Elections) 1906, the Constitution Alteration (State Debts) 1909, the Constitution Alteration (State Debts) 1928, and the Constitution Alteration (Social Services) 1946, is given *in extenso* hereunder, and the text contains all the alterations of the Constitution which have been made up to and including 31st December, 1960.

THE COMMONWEALTH OF AUSTRALIA CONSTITUTION ACT,
63 & 64 VICT., CHAPTER 12.

An Act to constitute the Commonwealth of Australia. (9th July, 1900.)

WHEREAS the people of New South Wales, Victoria, South Australia, Queensland, and Tasmania, humbly relying on the blessing of Almighty God, have agreed to unite in one indissoluble Federal Commonwealth under the Crown of the United Kingdom of Great Britain and Ireland, and under the Constitution hereby established:

And whereas it is expedient to provide for the admission into the Commonwealth of other Australian Colonies and possessions of the Queen:

Be it therefore enacted by the Queen's Most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:—

1. This Act may be cited as the Commonwealth of Australia Constitution Act.
2. The provisions of this Act referring to the Queen shall extend to Her Majesty's heirs and successors in the sovereignty of the United Kingdom.
3. It shall be lawful for the Queen, with the advice of the Privy Council, to declare by proclamation that, on and after a day therein appointed, not being later than one year after the passing of this Act, the people of New South Wales, Victoria, South Australia, Queensland, and Tasmania, and also, if Her Majesty is satisfied that the people of Western Australia have agreed thereto, of Western Australia, shall be united in a Federal Commonwealth under the name of the Commonwealth of Australia. But the Queen may, at any time after the proclamation, appoint a Governor-General for the Commonwealth.
4. The Commonwealth shall be established, and the Constitution of the Commonwealth shall take effect, on and after the day so appointed. But the Parliaments of the several colonies may at any time after the passing of this Act make any such laws, to come into operation on the day so appointed, as they might have made if the Constitution had taken effect at the passing of this Act.
5. This Act, and all laws made by the Parliament of the Commonwealth under the Constitution, shall be binding on the courts, judges, and people of every State and of every part of the Commonwealth, notwithstanding anything in the laws of any State; and the laws of the Commonwealth shall be in force on all British ships, the Queen's ships of war excepted, whose first port of clearance and whose port of destination are in the Commonwealth.
6. “The Commonwealth” shall mean the Commonwealth of Australia as established under this Act.
“The States” shall mean such of the colonies of New South Wales, New Zealand, Queensland, Tasmania, Victoria, Western Australia, and South Australia, including the northern territory of South Australia, as for the time being are parts of the Commonwealth, and such colonies or territories as may be admitted into or established by the Commonwealth as States; and each of such parts of the Commonwealth shall be called “a State.”
“Original States” shall mean such States as are parts of the Commonwealth at its establishment.

7. The Federal Council of Australasia Act, 1885, is hereby repealed, but so as not to affect any laws passed by the Federal Council of Australasia and in force at the establishment of the Commonwealth.

Any such law may be repealed as to any State by the Parliament of the Commonwealth, or as to any colony not being a State by the Parliament thereof.

8. After the passing of this Act the Colonial Boundaries Act, 1895, shall not apply to any colony which becomes a State of the Commonwealth; but the Commonwealth shall be taken to be a self-governing colony for the purposes of that Act.

9. The Constitution of the Commonwealth shall be as follows:—

THE CONSTITUTION.

This Constitution is divided as follows:—

- Chapter I.—The Parliament:
 - Part I.—General:
 - Part II.—The Senate:
 - Part III.—The House of Representatives:
 - Part IV.—Both Houses of the Parliament:
 - Part V.—Powers of the Parliament:
- Chapter II.—The Executive Government:
- Chapter III.—The Judicature:
- Chapter IV.—Finance and Trade:
- Chapter V.—The States:
- Chapter VI.—New States:
- Chapter VII.—Miscellaneous:
- Chapter VIII.—Alteration of the Constitution.
- The Schedule.

CHAPTER I.—THE PARLIAMENT.

PART I.—GENERAL.

1. The legislative power of the Commonwealth shall be vested in a Federal Parliament, which shall consist of the Queen, a Senate, and a House of Representatives; and which is hereinafter called “The Parliament”, or “The Parliament of the Commonwealth”.

2. A Governor-General appointed by the Queen shall be Her Majesty's representative in the Commonwealth, and shall have and may exercise in the Commonwealth during the Queen's pleasure, but subject to this Constitution, such powers and functions of the Queen as Her Majesty may be pleased to assign to him.

3. There shall be payable to the Queen out of the Consolidated Revenue Fund of the Commonwealth, for the salary of the Governor-General, an annual sum which, until the Parliament otherwise provides, shall be ten thousand pounds.

The salary of a Governor-General shall not be altered during his continuance in office.

4. The provisions of this Constitution relating to the Governor-General extend and apply to the Governor-General for the time being, or such person as the Queen may appoint to administer the Government of the Commonwealth; but no such person shall be entitled to receive any salary from the Commonwealth in respect of any other office during his administration of the Government of the Commonwealth.

5. The Governor-General may appoint such times for holding the sessions of the Parliament as he thinks fit, and may also from time to time, by Proclamation or otherwise prorogue the Parliament, and may in like manner dissolve the House of Representatives.

After any general election the Parliament shall be summoned to meet not later than thirty days after the day appointed for the return of the writs.

The Parliament shall be summoned to meet not later than six months after the establishment of the Commonwealth.

6. There shall be a session of the Parliament once at least in every year, so that twelve months shall not intervene between the last sitting of the Parliament in one session and its first sitting in the next session.

PART II.—THE SENATE.

7. The Senate shall be composed of senators for each State, directly chosen by the people of the State, voting, until the Parliament otherwise provides, as one electorate.

But until the Parliament of the Commonwealth otherwise provides, the Parliament of the State of Queensland, if that State be an Original State, may make laws dividing the State into divisions and determining the number of senators to be chosen for each division, and in the absence of such provision the State shall be one electorate.

Until the Parliament otherwise provides there shall be six senators for each Original State.* The Parliament may make laws increasing or diminishing the number of senators for each State, but so that equal representation of the several Original States shall be maintained and that no Original State shall have less than six senators.

The senators shall be chosen for a term of six years, and the names of the senators chosen for each State shall be certified by the Governor to the Governor-General.

8. The qualification of electors of senators shall be in each State that which is prescribed by this Constitution, or by the Parliament, as the qualification for electors of members of the House of Representatives; but in the choosing of senators each elector shall vote only once.

9. The Parliament of the Commonwealth may make laws prescribing the method of choosing senators, but so that the method shall be uniform for all the States. Subject to any such law, the Parliament of each State may make laws prescribing the method of choosing the senators for that State.

The Parliament of a State may make laws for determining the times and places of elections of senators for the State.

10. Until the Parliament otherwise provides, but subject to this Constitution, the laws in force in each State, for the time being, relating to elections for the more numerous House of the Parliament of the State shall, as nearly as practicable, apply to elections of senators for the State.

11. The Senate may proceed to the despatch of business, notwithstanding the failure of any State to provide for its representation in the Senate.

12. The Governor of any State may cause writs to be issued for elections of senators for the State. In case of the dissolution of the Senate the writs shall be issued within ten days from the proclamation of such dissolution.

13. As soon as may be after the Senate first meets, and after each first meeting of the Senate following a dissolution thereof, the Senate shall divide the senators chosen for each State into two classes, as nearly equal in number as practicable; and the places of the senators of the first class shall become vacant at the expiration of [the third year] *three years*,† and the places of those of the second class at the expiration of [the sixth year] *six years*,† from the beginning of their term of service; and afterwards the places of senators shall become vacant at the expiration of six years from the beginning of their term of service.

The election to fill vacant places shall be made [in the year at the expiration of which] *within one year before*† the places are to become vacant.

For the purposes of this section the term of service of a senator shall be taken to begin on the first day of [January] *July*† following the day of his election, except in the cases of the first election and of the election next after any dissolution of the Senate, when it shall be taken to begin on the first day of [January] *July*† preceding the day of his election.

14. Whenever the number of senators for a State is increased or diminished, the Parliament of the Commonwealth may make such provision for the vacating of the places of senators for the State as it seems necessary to maintain regularity in the rotation.

15. If the place of a senator becomes vacant before the expiration of his term of service, the Houses of Parliament of the State for which he was chosen shall, sitting and voting together, choose a person to hold the place until the expiration of the term, or until the election of a successor as hereinafter provided, whichever first happens. But if the Houses of Parliament of the State are not in session at the time when the vacancy is notified,

* The Parliament has otherwise provided, by means of the Representation Act 1948, that the number of senators shall be ten for each State from the first meeting of Parliament after the first dissolution of the House of Representatives occurring after the commencement of the Act (18th May, 1948).

† As amended by Section 2 of the Constitution Alteration (Senate Elections) 1906. The words in square brackets have been repealed; amendments are shown in italics.

the Governor of the State, with the advice of the Executive Council thereof, may appoint a person to hold the place until the expiration of fourteen days after the beginning of the next session of the Parliament of the State, or until the election of a successor, whichever first happens.

At the next general election of members of the House of Representatives, or at the next election of senators for the State, whichever first happens, a successor shall, if the term has not then expired, be chosen to hold the place from the date of his election until the expiration of the term.

The name of any senator so chosen or appointed shall be certified by the Governor of the State to the Governor-General.

16. The qualifications of a senator shall be the same as those of a member of the House of Representatives.

17. The Senate shall, before proceeding to the despatch of any other business, choose a senator to be the President of the Senate; and as often as the office of President becomes vacant the Senate shall again choose a senator to be the President.

The President shall cease to hold his office if he ceases to be a senator. He may be removed from office by a vote of the Senate, or he may resign his office or his seat by writing addressed to the Governor-General.

18. Before or during any absence of the President, the Senate may choose a senator to perform his duties in his absence.

19. A senator may, by writing addressed to the President, or to the Governor-General if there is no President or if the President is absent from the Commonwealth, resign his place, which thereupon shall become vacant.

20. The place of a senator shall become vacant if for two consecutive months of any session of the Parliament he, without the permission of the Senate, fails to attend the Senate.

21. Whenever a vacancy happens in the Senate, the President, or if there is no President or if the President is absent from the Commonwealth the Governor-General, shall notify the same to the Governor of the State in the representation of which the vacancy has happened.

22. Until the Parliament otherwise provides, the presence of at least one-third of the whole number of the senators shall be necessary to constitute a meeting of the Senate for the exercise of its powers.

23. Questions arising in the Senate shall be determined by a majority of votes, and each senator shall have one vote. The President shall in all cases be entitled to a vote; and when the votes are equal the question shall pass in the negative.

PART III.—THE HOUSE OF REPRESENTATIVES.

24. The House of Representatives shall be composed of members directly chosen by the people of the Commonwealth, and the number of such members shall be, as nearly as practicable, twice the number of the senators.

The number of members chosen in the several States shall be in proportion to the respective numbers of their people, and shall, until the Parliament otherwise provides, be determined, whenever necessary, in the following manner:—

- (i) A quota shall be ascertained by dividing the number of the people of the Commonwealth, as shown by the latest statistics of the Commonwealth, by twice the number of the senators;
- (ii) The number of members to be chosen in each State shall be determined by dividing the number of the people of the State, as shown by the latest statistics of the Commonwealth, by the quota; and if on such division there is a remainder greater than one-half of the quota, one more member shall be chosen in the State.

But notwithstanding anything in this section five members at least shall be chosen in each Original State.

25. For the purposes of the last section, if by the law of any State all persons of any race are disqualified from voting at elections for the more numerous House of the Parliament of the State, then, in reckoning the number of the people of the State or of the Commonwealth, persons of that race resident in that State shall not be counted.

26. Notwithstanding anything in section twenty-four, the number of members to be chosen in each State at the first election shall be as follows:—

New South Wales ..	23	South Australia ..	6
Victoria ..	20	Tasmania ..	5
Queensland ..	8		

Provided that if Western Australia is an Original State, the numbers shall be as follows:—

New South Wales ..	26	South Australia ..	7
Victoria ..	23	Western Australia ..	5
Queensland ..	9	Tasmania ..	5

27. Subject to this Constitution, the Parliament may make laws for increasing or diminishing the number of the members of the House of Representatives.

28. Every House of Representatives shall continue for three years from the first meeting of the House, and no longer, but may be sooner dissolved by the Governor-General.

29. Until the Parliament of the Commonwealth otherwise provides, the Parliament of any State may make laws for determining the divisions in each State for which members of the House of Representatives may be chosen, and the number of members to be chosen for each division. A division shall not be formed out of parts of different States.

In the absence of other provision, each State shall be one electorate.

30. Until the Parliament otherwise provides, the qualification of electors of members of the House of Representatives shall be in each State that which is prescribed by the law of the State as the qualification of electors of the more numerous House of Parliament of the State; but in the choosing of members each elector shall vote only once.*

31. Until the Parliament otherwise provides, but subject to this Constitution, the laws in force in each State for the time being relating to elections for the more numerous House of the Parliament of the State shall, as nearly as practicable, apply to elections in the State of members of the House of Representatives.

32. The Governor-General in Council may cause writs to be issued for general elections of members of the House of Representatives.

After the first general election, the writs shall be issued within ten days from the expiry of a House of Representatives or from the proclamation of a dissolution thereof.

33. Whenever a vacancy happens in the House of Representatives, the Speaker shall issue his writ for the election of a new member, or if there is no Speaker or if he is absent from the Commonwealth the Governor-General in Council may issue the writ.

34. Until the Parliament otherwise provides, the qualifications of a member of the House of Representatives shall be as follows:—

(i) He must be of the full age of twenty-one years, and must be an elector entitled to vote at the election of members of the House of Representatives, or a person qualified to become such elector, and must have been for three years at the least a resident within the limits of the Commonwealth as existing at the time when he is chosen:

(ii) He must be a subject of the Queen, either natural-born or for at least five years naturalized under a law of the United Kingdom, or of a Colony which has become or becomes a State, or of the Commonwealth, or of a State.†

35. The House of Representatives shall, before proceeding to the despatch of any other business, choose a member to be the Speaker of the House, and as often as the office of Speaker becomes vacant the House shall again choose a member to be the Speaker.

The Speaker shall cease to hold his office if he ceases to be a member. He may be removed from office by a vote of the House, or he may resign his office or his seat by writing addressed to the Governor-General.

36. Before or during any absence of the Speaker, the House of Representatives may choose a member to perform his duties in his absence.

* The Parliament has otherwise provided, by means of the Commonwealth Electoral Act 1918–1953, Sections 39 and 39A (repealing an earlier provision made by the Commonwealth Franchise Act 1902). For present qualifications see Chapter III.—General Government.

† The Parliament has otherwise provided, by means of the Commonwealth Electoral Act 1918–1953, Section 69. For present qualifications see Chapter III.—General Government.

37. A member may by writing addressed to the Speaker, or to the Governor-General if there is no Speaker or if the Speaker is absent from the Commonwealth, resign his place, which thereupon shall become vacant.

38. The place of a member shall become vacant if for two consecutive months of any session of the Parliament he, without the permission of the House, fails to attend the House.

39. Until the Parliament otherwise provides, the presence of at least one-third of the whole number of the members of the House of Representatives shall be necessary to constitute a meeting of the House for the exercise of its powers.

40. Questions arising in the House of Representatives shall be determined by a majority of votes other than that of the Speaker. The Speaker shall not vote unless the numbers are equal, and then he shall have a casting vote.

PART IV.—BOTH HOUSES OF THE PARLIAMENT.

41. No adult person who has or acquires a right to vote at elections for the more numerous House of the Parliament of a State shall, while the right continues, be prevented by any law of the Commonwealth from voting at elections for either House of the Parliament of the Commonwealth.

42. Every senator and every member of the House of Representatives shall before taking his seat make and subscribe before the Governor-General, or some person authorized by him, an oath or affirmation of allegiance in the form set forth in the schedule to this Constitution.

43. A member of either House of the Parliament shall be incapable of being chosen or of sitting as a member of the other House.

44. Any person who—

- (i) Is under any acknowledgment of allegiance, obedience, or adherence to a foreign power, or is a subject or a citizen or entitled to the rights or privileges of a subject or a citizen of a foreign power: or
- (ii) Is attainted of treason, or has been convicted and is under sentence, or subject to be sentenced, for any offence punishable under the law of the Commonwealth or of a State by imprisonment for one year or longer: or
- (iii) Is an undischarged bankrupt or insolvent: or
- (iv) Holds any office of profit under the Crown, or any pension payable during the pleasure of the Crown out of any of the revenues of the Commonwealth: or
- (v) Has any direct or indirect pecuniary interest in any agreement with the Public Service of the Commonwealth otherwise than as a member and in common with the other members of an incorporated company consisting of more than twenty-five persons:

shall be incapable of being chosen or of sitting as a senator or a member of the House of Representatives.

But sub-section iv. does not apply to the office of any of the Queen's Ministers of State for the Commonwealth, or of any of the Queen's Ministers for a State, or to the receipt of pay, half-pay, or a pension by any person as an officer or member of the Queen's navy or army, or to the receipt of pay as an officer or member of the naval or military forces of the Commonwealth by any person whose services are not wholly employed by the Commonwealth.

45. If a senator or member of the House of Representatives—

- (i) Becomes subject to any of the disabilities mentioned in the last preceding section: or
- (ii) Takes the benefit, whether by assignment, composition, or otherwise, of any law relating to bankrupt or insolvent debtors: or
- (iii) Directly or indirectly takes or agrees to take any fee or honorarium for services rendered to the Commonwealth, or for services rendered in the Parliament to any person or State:

his place shall thereupon become vacant.

46. Until the Parliament otherwise provides, any person declared by this Constitution to be incapable of sitting as a senator or as a member of the House of Representatives shall, for every day on which he so sits, be liable to pay the sum of one hundred pounds to any person who sues for it in any court of competent jurisdiction.

47. Until the Parliament otherwise provides, any question respecting the qualification of a senator or of a member of the House of Representatives, or respecting a vacancy in either House of the Parliament, and any question of a disputed election to either House shall be determined by the House in which the question arises.

48. Until the Parliament otherwise provides, each senator and each member of the House of Representatives shall receive an allowance of four hundred pounds a year, to be reckoned from the day on which he takes his seat.*

49. The powers, privileges, and immunities of the Senate and of the House of Representatives, and of the members and the committees of each House, shall be such as are declared by the Parliament, and until declared shall be those of the Commons House of Parliament of the United Kingdom, and of its members and committees, at the establishment of the Commonwealth.

50. Each House of the Parliament may make rules and orders with respect to—

- (i) The mode in which its powers, privileges, and immunities may be exercised and upheld;
- (ii) The order and conduct of its business and proceedings either separately or jointly with the other House.

PART V.—POWERS OF THE PARLIAMENT.†

51. The Parliament shall, subject to this Constitution, have power to make laws for the peace, order, and good government of the Commonwealth with respect to:—

- (i) Trade and commerce with other countries, and among the States:
- (ii) Taxation; but so as not to discriminate between States or parts of States:
- (iii) Bounties on the production or export of goods, but so that such bounties shall be uniform throughout the Commonwealth:
- (iv) Borrowing money on the public credit of the Commonwealth:
- (v) Postal, telegraphic, telephonic, and other like services:
- (vi) The naval and military defence of the Commonwealth and of the several States, and the control of the forces to execute and maintain the laws of the Commonwealth:
- (vii) Lighthouses, lightships, beacons and buoys:
- (viii) Astronomical and meteorological observations:
- (ix) Quarantine:
- (x) Fisheries in Australian waters beyond territorial limits:
- (xi) Census and statistics:
- (xii) Currency, coinage, and legal tender:
- (xiii) Banking, other than State banking; also State banking extending beyond the limits of the State concerned, the incorporation of banks, and the issue of paper money:
- (xiv) Insurance, other than State insurance; also State insurance extending beyond the limits of the State concerned:
- (xv) Weights and measures:
- (xvi) Bills of exchange and promissory notes:
- (xvii) Bankruptcy and insolvency:
- (xviii) Copyrights, patents of inventions and designs, and trade marks:
- (xix) Naturalization and aliens:
- (xx) Foreign corporations, and trading or financial corporations formed within the limits of the Commonwealth:
- (xxi) Marriage:

* The Parliamentary allowance has been varied from time to time (*see* pp. 69 and 70 of Official Year Book No. 42). In 1959, it was increased to £2,750, while additional allowances of £1,500 and £3,250, respectively, were granted to the Leaders of the Opposition in the Senate and the House of Representatives, and an additional allowance of £750 to the Leader in the House of Representatives (other than the Leader of the Opposition) of a recognized political party which has not less than ten members in the House of Representatives and of which no member is a Minister.

† Particulars of proposed laws which were submitted to referendums are referred to in Chapter III.—General Government.

- (xxii) Divorce and matrimonial causes; and in relation thereto, parental rights, and the custody and guardianship of infants;
- (xxiii) Invalid and old-age pensions:
- (xxiiiA) **The provision of maternity allowances, widows' pensions, child endowment, unemployment, pharmaceutical, sickness and hospital benefits, medical and dental services (but not so as to authorize any form of civil conscription), benefits to students and family allowances:*
- (xxiv) The service and execution throughout the Commonwealth of the civil and criminal process and the judgments of the courts of the States:
- (xxv) The recognition throughout the Commonwealth of the laws, the public Acts and records, and the judicial proceedings of the States:
- (xxvi) The people of any race, other than the aboriginal race in any State, for whom it is deemed necessary to make special laws:
- (xxvii) Immigration and emigration:
- (xxviii) The influx of criminals:
- (xxix) External affairs:
- (xxx) The relations of the Commonwealth with the islands of the Pacific:
- (xxxi) The acquisition of property on just terms from any State or person for any purpose in respect of which the Parliament has power to make laws:
- (xxxii) The control of railways with respect to transport for the naval and military purposes of the Commonwealth:
- (xxxiii) The acquisition, with the consent of a State, of any railways of the State on terms arranged between the Commonwealth and the State:
- (xxxiv) Railway construction and extension in any State with the consent of that State:
- (xxxv) Conciliation and arbitration for the prevention and settlement of industrial disputes extending beyond the limits of any one State:
- (xxxvi) Matters in respect of which this Constitution makes provision until the Parliament otherwise provides:
- (xxxvii) Matters referred to the Parliament of the Commonwealth by the Parliament or Parliaments of any State or States, but so that the law shall extend only to States by whose Parliaments the matter is referred, or which afterwards adopt the law:
- (xxxviii) The exercise within the Commonwealth, at the request or with the concurrence of the Parliaments of all the States directly concerned, of any power which can at the establishment of this Constitution be exercised only by the Parliament of the United Kingdom or by the Federal Council of Australasia:
- (xxxix) Matters incidental to the execution of any power vested by this Constitution in the Parliament or in either House thereof, or in the Government of the Commonwealth, or in the Federal Judicature, or in any department or officer of the Commonwealth.

52. The Parliament shall, subject to this Constitution, have exclusive power to make laws for the peace, order, and good government of the Commonwealth with respect to—

- (i) The seat of Government of the Commonwealth, and all places acquired by the Commonwealth for public purposes:
- (ii) Matters relating to any department of the public service the control of which is by this Constitution transferred to the Executive Government of the Commonwealth:
- (iii) Other matters declared by this Constitution to be within the exclusive power of the Parliament.

53. Proposed laws appropriating revenue or moneys, or imposing taxation, shall not originate in the Senate. But a proposed law shall not be taken to appropriate revenue or moneys, or to impose taxation, by reason only of its containing provisions for the imposition or appropriation of fines or other pecuniary penalties, or for the demand or payment or appropriation of fees for licences, or fees for services under the proposed law.

* Under Section 2 of the Constitution Alteration (Social Services) 1946, the Constitution was amended by the insertion of this paragraph.

The Senate may not amend proposed laws imposing taxation, or proposed laws appropriating revenue or moneys for the ordinary annual services of the Government.

The Senate may not amend any proposed law so as to increase any proposed charge or burden on the people.

The Senate may at any stage return to the House of Representatives any proposed law which the Senate may not amend, requesting, by message, the omission or amendment of any items or provisions therein. And the House of Representatives may, if it thinks fit, make any of such omissions or amendments, with or without modifications.

Except as provided in this section, the Senate shall have equal power with the House of Representatives in respect of all proposed laws.

54. The proposed law which appropriates revenue or moneys for the ordinary annual services of the Government shall deal only with such appropriation.

55. Laws imposing taxation shall deal only with the imposition of taxation, and any provision therein dealing with any other matter shall be of no effect.

Laws imposing taxation, except laws imposing duties of customs or of excise, shall deal with one subject of taxation only; but laws imposing duties of customs shall deal with duties of customs only, and laws imposing duties of excise shall deal with duties of excise only.

56. A vote, resolution, or proposed law for the appropriation of revenue or moneys shall not be passed unless the purpose of the appropriation has in the same session been recommended by message of the Governor-General to the House in which the proposal originated.

57. If the House of Representatives passes any proposed law, and the Senate rejects or fails to pass it, or passes it with amendments to which the House of Representatives will not agree, and if after an interval of three months the House of Representatives, in the same or the next session, again passes the proposed law with or without any amendments which have been made, suggested, or agreed to by the Senate, and the Senate rejects or fails to pass it, or passes it with amendments to which the House of Representatives will not agree, the Governor-General may dissolve the Senate and the House of Representatives simultaneously. But such dissolution shall not take place within six months before the date of the expiry of the House of Representatives by effluxion of time.

If after such dissolution the House of Representatives again passes the proposed law, with or without any amendments which have been made, suggested, or agreed to by the Senate, and the Senate rejects or fails to pass it, or passes it with amendments to which the House of Representatives will not agree, the Governor-General may convene a joint sitting of the members of the Senate and of the House of Representatives.

The members present at the joint sitting may deliberate and shall vote together upon the proposed law as last proposed by the House of Representatives, and upon amendments, if any, which have been made therein by one House and not agreed to by the other, and any such amendments which are affirmed by an absolute majority of the total number of the members of the Senate and House of Representatives shall be taken to have been carried, and if the proposed law, with the amendments, if any, so carried is affirmed by an absolute majority of the total number of members of the Senate and House of Representatives, it shall be taken to have been duly passed by both Houses of the Parliament, and shall be presented to the Governor-General for the Queen's assent.

58. When a proposed law passed by both Houses of the Parliament is presented to the Governor-General for the Queen's assent, he shall declare, according to his discretion, but subject to this Constitution, that he assents in the Queen's name, or that he withholds assent, or that he reserves the law for the Queen's pleasure.

The Governor-General may return to the House in which it originated any proposed law so presented to him, and may transmit therewith any amendments which he may recommend, and the Houses may deal with the recommendation.

59. The Queen may disallow any law within one year from the Governor-General's assent, and such disallowance on being made known by the Governor-General by speech or message to each of the Houses of the Parliament, or by Proclamation, shall annul the law from the day when the disallowance is so made known.

60. A proposed law reserved for the Queen's pleasure shall not have any force unless and until within two years from the day on which it was presented to the Governor-General for the Queen's assent the Governor-General makes known, by speech or message to each of the Houses of the Parliament, or by Proclamation, that it has received the Queen's assent.

CHAPTER II.—THE EXECUTIVE GOVERNMENT.

61. The executive power of the Commonwealth is vested in the Queen and is exercisable by the Governor-General as the Queen's representative, and extends to the execution and maintenance of this Constitution, and of the laws of the Commonwealth.

62. There shall be a Federal Executive Council to advise the Governor-General in the government of the Commonwealth, and the members of the Council shall be chosen and summoned by the Governor-General and sworn as Executive Councillors, and shall hold office during his pleasure.

63. The provisions of this Constitution referring to the Governor-General in Council shall be construed as referring to the Governor-General acting with the advice of the Federal Executive Council.

64. The Governor-General may appoint officers to administer such departments of State of the Commonwealth as the Governor-General in Council may establish.

Such officers shall hold office during the pleasure of the Governor-General. They shall be members of the Federal Executive Council, and shall be the Queen's Ministers of State for the Commonwealth.

After the first general election no Minister of State shall hold office for a longer period than three months unless he is or becomes a senator or a member of the House of Representatives.

65. Until the Parliament otherwise provides, the Ministers of State shall not exceed seven in number, and shall hold such offices as the Parliament prescribes, or, in the absence of provision, as the Governor-General directs.*

66. There shall be payable to the Queen, out of the Consolidated Revenue Fund of the Commonwealth, for the salaries of the Ministers of State, an annual sum which until the Parliament otherwise provides, shall not exceed twelve thousand pounds a year.*

67. Until the Parliament otherwise provides, the appointment and removal of all other officers of the Executive Government of the Commonwealth shall be vested in the Governor-General in Council, unless the appointment is delegated by the Governor-General in Council or by a law of the Commonwealth to some other authority.

68. The command in chief of the naval and military forces of the Commonwealth is vested in the Governor-General as the Queen's representative.

69. On a date or dates to be proclaimed by the Governor-General after the establishment of the Commonwealth the following departments of the public service in each State shall become transferred to the Commonwealth:—

Posts, telegraphs, and telephones:	| Lighthouses, lightships, beacons, and buoys:
Naval and military defence:	
	Quarantine.

But the Departments of customs and of excise in each State shall become transferred to the Commonwealth on its establishment.

70. In respect of matters which, under this Constitution, pass to the Executive Government of the Commonwealth, all powers and functions which at the establishment of the Commonwealth are vested in the Governor of a Colony, or in the Governor of a Colony with the advice of his Executive Council, or in any authority of a Colony, shall vest in the Governor-General, or in the Governor-General in Council, or in the authority exercising similar powers under the Commonwealth, as the case requires.

* The number of Ministers of State has been increased from time to time (see Chapter III. para. 4 (vi.), p. 64, for details) and has been 22 since 1956. The annual appropriation for Ministers' salaries has been correspondingly increased and has been £66,600 since 1956.

CHAPTER III.—THE JUDICATURE.

71. The judicial power of the Commonwealth shall be vested in a Federal Supreme Court, to be called the High Court of Australia, and in such other federal courts as the Parliament creates, and in such other courts as it invests with federal jurisdiction. The High Court shall consist of a Chief Justice, and so many other Justices, not less than two, as the Parliament prescribes.*

72. The Justices of the High Court and of the other Courts created by the Parliament—

- (i) Shall be appointed by the Governor-General in Council:
- (ii) Shall not be removed except by the Governor-General in Council, on an address from both Houses of the Parliament in the same session, praying for such removal on the ground of proved misbehaviour or incapacity:
- (iii) Shall receive such remuneration as the Parliament may fix; but the remuneration shall not be diminished during their continuance in office.*

73. The High Court shall have jurisdiction, with such exceptions and subject to such regulations as the Parliament prescribes, to hear and determine appeals from all judgments, decrees, orders, and sentences—

- (i) Of any Justice or Justices exercising the original jurisdiction of the High Court:
 - (ii) Of any other federal court, or court exercising federal jurisdiction; or of the Supreme Court of any State, or of any other court of any State from which at the establishment of the Commonwealth an appeal lies to the Queen in Council:
 - (iii) Of the Inter-State Commission, but as to questions of law only:
- and the judgment of the High Court in all such cases shall be final and conclusive.

But no exception or regulation prescribed by the Parliament shall prevent the High Court from hearing and determining any appeal from the Supreme Court of a State in any matter in which at the establishment of the Commonwealth an appeal lies from such Supreme Court to the Queen in Council.

Until the Parliament otherwise provides, the conditions of and restrictions on appeals to the Queen in Council from the Supreme Courts of the several States shall be applicable to appeals from them to the High Court.

74. No appeal shall be permitted to the Queen in Council from a decision of the High Court upon any question, howsoever arising, as to the limits *inter se* of the Constitutional powers of the Commonwealth and those of any State or States, or as to the limits *inter se* of the Constitutional powers of any two or more States, unless the High Court shall certify that the question is one which ought to be determined by Her Majesty in Council.

The High Court may so certify if satisfied that for any special reason the certificate should be granted, and thereupon an appeal shall lie to Her Majesty in Council on the question without further leave.

Except as provided in this section, this Constitution shall not impair any right which the Queen may be pleased to exercise by virtue of Her Royal prerogative to grant special leave of appeal from the High Court to Her Majesty in Council. The Parliament may make laws limiting the matters in which such leave may be asked, but proposed laws containing any such limitation shall be reserved by the Governor-General for Her Majesty's pleasure.

75. In all matters—

- (i) Arising under any treaty:
- (ii) Affecting consuls or other representatives of other countries:
- (iii) In which the Commonwealth, or a person suing or being sued on behalf of the Commonwealth, is a party:
- (iv) Between States, or between residents of different States, or between a State and a resident of another State:
- (v) In which a writ of Mandamus or prohibition or an injunction is sought against an officer of the Commonwealth:

the High Court shall have original jurisdiction.

* The Judiciary Act 1903 provided for a Chief Justice and two other Justices, increased by subsequent amendments to six. The Judiciary Act 1903 also provided for the payment of a salary of £3,500 a year to the Chief Justice and of £3,000 a year to each other Justice, later increased to £8,000 and £6,500 a year, respectively.

76. The Parliament may make laws conferring original jurisdiction on the High Court in any matter—

- (i) Arising under this Constitution, or involving its interpretation:
- (ii) Arising under any laws made by the Parliament:
- (iii) Of Admiralty and maritime jurisdiction:
- (iv) Relating to the same subject-matter claimed under the laws of different States.

77. With respect to any of the matters mentioned in the last two sections the Parliament may make laws—

- (i) Defining the jurisdiction of any federal court other than the High Court:
- (ii) Defining the extent to which the jurisdiction of any federal court shall be exclusive of that which belongs to or is invested in the courts of the States:
- (iii) Investing any court of a State with federal jurisdiction.

78. The Parliament may make laws conferring rights to proceed against the Commonwealth or a State in respect of matters within the limits of the judicial power.

79. The federal jurisdiction of any court may be exercised by such number of judges as the Parliament prescribes.

80. The trial on indictment of any offence against any law of the Commonwealth shall be by jury, and every such trial shall be held in the State where the offence was committed, and if the offence was not committed within any State the trial shall be held at such place or places as the Parliament prescribes.

CHAPTER IV.—FINANCE AND TRADE.

81. All revenues or moneys raised or received by the Executive Government of the Commonwealth shall form one Consolidated Revenue Fund, to be appropriated for the purposes of the Commonwealth in the manner and subject to the charges and liabilities imposed by this Constitution.

82. The costs, charges, and expenses incident to the collection, management, and receipt of the Consolidated Revenue Fund shall form the first charge thereon; and the revenue of the Commonwealth shall in the first instance be applied to the payment of the expenditure of the Commonwealth.

83. No money shall be drawn from the Treasury of the Commonwealth except under appropriation made by law.

But until the expiration of one month after the first meeting of the Parliament the Governor-General in Council may draw from the Treasury and expend such moneys as may be necessary for the maintenance of any department transferred to the Commonwealth and for the holding of the first elections for the Parliament.

84. When any department of the public service of a State becomes transferred to the Commonwealth, all officers of the department shall become subject to the control of the Executive Government of the Commonwealth.

Any such officer who is not retained in the service of the Commonwealth shall, unless he is appointed to some other office of equal emolument in the public service of the State, be entitled to receive from the State any pension, gratuity, or other compensation, payable under the law of the State on the abolition of his office.

Any such officer who is retained in the service of the Commonwealth shall preserve all his existing and accruing rights, and shall be entitled to retire from office at the time, and on the pension or retiring allowance, which would be permitted by the law of the State if his service with the Commonwealth were a continuation of his service with the State. Such pension or retiring allowance shall be paid to him by the Commonwealth; but the State shall pay to the Commonwealth a part thereof, to be calculated on the proportion which his term of service with the State bears to his whole term of service, and for the purpose of the calculation his salary shall be taken to be that paid to him by the State at the time of the transfer.

Any officer who is, at the establishment of the Commonwealth, in the public service of a State, and who is, by consent of the Governor of the State with the advice of the Executive Council thereof, transferred to the public service of the Commonwealth, shall have the same rights as if he had been an officer of a department transferred to the Commonwealth and were retained in the service of the Commonwealth.

85. When any department of the public service of a State is transferred to the Commonwealth—

- (i) All property of the State of any kind, used exclusively in connexion with the department, shall become vested in the Commonwealth; but, in the case of the departments controlling customs and excise and bounties, for such time only as the Governor-General in Council may declare to be necessary:
- (ii) The Commonwealth may acquire any property of the State, of any kind used, but not exclusively used in connexion with the department; the value thereof shall, if no agreement can be made, be ascertained in, as nearly as may be, the manner in which the value of land, or of an interest in land, taken by the State for public purposes is ascertained under the law of the State in force at the establishment of the Commonwealth:
- (iii) The Commonwealth shall compensate the State for the value of any property passing to the Commonwealth under this section; if no agreement can be made as to the mode of compensation, it shall be determined under laws to be made by the Parliament:
- (iv) The Commonwealth shall, at the date of the transfer, assume the current obligations of the State in respect of the department transferred.

86. On the establishment of the Commonwealth, the collection and control of duties of customs and of excise, and the control of the payment of bounties, shall pass to the Executive Government of the Commonwealth.

87. During a period of ten years after the establishment of the Commonwealth and thereafter until the Parliament otherwise provides, of the net revenue of the Commonwealth from duties of customs and of excise not more than one-fourth shall be applied annually by the Commonwealth towards its expenditure.

The balance shall, in accordance with this Constitution, be paid to the several States, or applied towards the payment of interest on debts of the several States taken over by the Commonwealth.

88. Uniform duties of customs shall be imposed within two years after the establishment of the Commonwealth.

89. Until the imposition of uniform duties of customs—

- (i) The Commonwealth shall credit to each State the revenues collected therein by the Commonwealth.
- (ii) The Commonwealth shall debit to each State—
 - (a) The expenditure therein of the Commonwealth incurred solely for the maintenance or continuance, as at the time of transfer, of any department transferred from the State to the Commonwealth;
 - (b) The proportion of the State, according to the number of its people, in the other expenditure of the Commonwealth.
- (iii) The Commonwealth shall pay to each State month by month the balance (if any) in favour of the State.

90. On the imposition of uniform duties of customs the power of the Parliament to impose duties of customs and of excise, and to grant bounties on the production or export of goods, shall become exclusive.

On the imposition of uniform duties of customs all laws of the several States imposing duties of customs or of excise, or offering bounties on the production or export of goods, shall cease to have effect, but any grant or agreement for any such bounty lawfully made by or under the authority of the Government of any State shall be taken to be good if made before the thirtieth day of June, one thousand eight hundred and ninety-eight, and not otherwise.

91. Nothing in this Constitution prohibits a State from granting any aid to or bounty on mining for gold, silver, or other metals, nor from granting, with the consent of both Houses of the Parliament of the Commonwealth expressed by resolution, any aid to or bounty on the production or export of goods.

92. On the imposition of uniform duties of customs, trade, commerce, and intercourse among the States, whether by means of internal carriage or ocean navigation, shall be absolutely free.

But notwithstanding anything in this Constitution, goods imported before the imposition of uniform duties of customs into any State, or into any Colony which, whilst the goods remain therein, becomes a State, shall, on thence passing into another State within two

years after the imposition of such duties, be liable to any duty chargeable on the importation of such goods into the Commonwealth, less any duty paid in respect of the goods on their importation.

93. During the first five years after the imposition of uniform duties of customs, and thereafter until the Parliament otherwise provides—

- (i) The duties of customs chargeable on goods imported into a State and afterwards passing into another State for consumption, and the duties of excise paid on goods produced or manufactured in a State and afterwards passing into another State for consumption, shall be taken to have been collected not in the former but in the latter State:
- (ii) Subject to the last sub-section, the Commonwealth shall credit revenue, debit expenditure, and pay balances to the several States as prescribed for the period preceding the imposition of uniform duties of customs.

94. After five years from the imposition of uniform duties of customs, the Parliament may provide, on such basis as it deems fair, for the monthly payment to the several States of all surplus revenue of the Commonwealth.

95. Notwithstanding anything in this Constitution, the Parliament of the State of Western Australia, if that State be an Original State, may, during the first five years after the imposition of uniform duties of customs, impose duties of customs on goods passing into that State and not originally imported from beyond the limits of the Commonwealth; and such duties shall be collected by the Commonwealth.

But any duty so imposed on any goods shall not exceed during the first of such years the duty chargeable on the goods under the law of Western Australia in force at the imposition of uniform duties, and shall not exceed during the second, third, fourth, and fifth of such years respectively, four-fifths, three-fifths, two-fifths, and one-fifth of such latter duty, and all duties imposed under this section shall cease at the expiration of the fifth year after the imposition of uniform duties.

If at any time during the five years the duty on any goods under this section is higher than the duty imposed by the Commonwealth on the importation of the like goods, then such higher duty shall be collected on the goods when imported into Western Australia from beyond the limits of the Commonwealth.

96. During a period of ten years after the establishment of the Commonwealth and thereafter until the Parliament otherwise provides, the Parliament may grant financial assistance to any State on such terms and conditions as the Parliament thinks fit.

97. Until the Parliament otherwise provides, the laws in force in any Colony which has become or becomes a State with respect to the receipt of revenue and the expenditure of money on account of the Government of the Colony, and the review and audit of such receipt and expenditure, shall apply to the receipt of revenue and the expenditure of money on account of the Commonwealth in the State in the same manner as if the Commonwealth, or the Government or an officer of the Commonwealth, were mentioned whenever the Colony, or the Government or an officer of the Colony, is mentioned.

98. The power of the Parliament to make laws with respect to trade and commerce extends to navigation and shipping, and to railways the property of any State.

99. The Commonwealth shall not, by any law or regulation of trade, commerce, or revenue, give preference to one State or any part thereof over another State or any part thereof.

100. The Commonwealth shall not, by any law or regulation of trade or commerce, abridge the right of a State or of the residents therein to the reasonable use of the waters of rivers for conservation or irrigation.

101. There shall be an Inter-State Commission, with such powers of adjudication and administration as the Parliament deems necessary for the execution and maintenance, within the Commonwealth, of the provisions of this Constitution relating to trade and commerce, and of all laws made thereunder.

102. The Parliament may by any law with respect to trade or commerce forbid, as to railways, any preference or discrimination by any State, or by any authority constituted under a State, if such preference or discrimination is undue and unreasonable, or unjust to any State; due regard being had to the financial responsibilities incurred by any State in connexion with the construction and maintenance of its railways. But no preference or discrimination shall, within the meaning of this section, be taken to be undue and unreasonable, or unjust to any State, unless so adjudged by the Inter-State Commission.

103. The members of the Inter-State Commission—

- (i) Shall be appointed by the Governor-General in Council;
- (ii) Shall hold office for seven years, but may be removed within that time by the Governor-General in Council, on an address from both Houses of the Parliament in the same session praying for such removal on the ground of proved misbehaviour or incapacity;
- (iii) Shall receive such remuneration as the Parliament may fix; but such remuneration shall not be diminished during their continuance in office.

104. Nothing in this Constitution shall render unlawful any rate for the carriage of goods upon a railway, the property of a State, if the rate is deemed by the Inter-State Commission to be necessary for the development of the territory of the State, and if the rate applies equally to goods within the State and to goods passing into the State from other States.

105. The Parliament may take over from the States their public debts [as existing at the establishment of the Commonwealth],* or a proportion thereof according to the respective numbers of their people as shown by the latest statistics of the Commonwealth, and may convert, renew, or consolidate such debts, or any part thereof; and the States shall indemnify the Commonwealth in respect of the debts taken over, and thereafter the interest payable in respect of the debts shall be deducted and retained from the portions of the surplus revenue of the Commonwealth payable to the several States, or if such surplus is insufficient, or if there is no surplus, then the deficiency or the whole amount shall be paid by the several States.

105A.† (1.) *The Commonwealth may make agreements with the States with respect to the public debts of the States, including—*

- (a) *the taking over of such debts by the Commonwealth;*
- (b) *the management of such debts;*
- (c) *the payment of interest and the provision and management of sinking funds in respect of such debts;*
- (d) *the consolidation, renewal, conversion, and redemption of such debts;*
- (e) *the indemnification of the Commonwealth by the States in respect of debts taken over by the Commonwealth; and*
- (f) *the borrowing of money by the States or by the Commonwealth, or by the Commonwealth for the States.*

(2.) *The Parliament may make laws for validating any such agreement made before the commencement of this section.*

(3.) *The Parliament may make laws for the carrying out by the parties thereto of any such agreement.*

(4.) *Any such agreement may be varied or rescinded by the parties thereto.*

(5.) *Every such agreement and any such variation thereof shall be binding upon the Commonwealth and the States parties thereto notwithstanding anything contained in this Constitution or the Constitution of the several States or in any law of the Parliament of the Commonwealth or of any State.*

(6.) *The powers conferred by this section shall not be construed as being limited in any way to the provisions of section one hundred and five of this Constitution.*

CHAPTER V.—THE STATES.

106. The Constitution of each State of the Commonwealth shall, subject to this Constitution, continue as at the establishment of the Commonwealth, or as at the admission or establishment of the State, as the case may be, until altered in accordance with the Constitution of the State.

107. Every power of the Parliament of a Colony which has become or becomes a State, shall, unless it is by this Constitution exclusively vested in the Parliament of the Commonwealth or withdrawn from the Parliament of the State, continue as at the establishment of the Commonwealth, or as at the admission or establishment of the State, as the case may be.

* Under Section 2 of the Constitution Alteration (State Debts) 1909, the words in square brackets were omitted.

† Under Section 2 of the Constitution Alteration (State Debts) 1928, the Constitution was amended by the insertion of this section.

108. Every law in force in a Colony which has become or becomes a State, and relating to any matter within the powers of the Parliament of the Commonwealth, shall, subject to this Constitution, continue in force in the State: and, until provision is made in that behalf by the Parliament of the Commonwealth, the Parliament of the State shall have such powers of alteration and of repeal in respect of any such law as the Parliament of the Colony had until the Colony became a State.

109. When a law of a State is inconsistent with a law of the Commonwealth, the latter shall prevail, and the former shall, to the extent of the inconsistency, be invalid.

110. The provisions of this Constitution relating to the Governor of a State extend and apply to the Governor for the time being of the State, or other chief executive officer or administrator of the government of the State.

111. The Parliament of a State may surrender any part of the State to the Commonwealth; and upon such surrender, and the acceptance thereof by the Commonwealth, such part of the State shall become subject to the exclusive jurisdiction of the Commonwealth.

112. After uniform duties of customs have been imposed, a State may levy on imports or exports, or on goods passing into or out of the State, such charges as may be necessary for executing the inspection laws of the State; but the net produce of all charges so levied shall be for the use of the Commonwealth; and any such inspection laws may be annulled by the Parliament of the Commonwealth.

113. All fermented, distilled, or other intoxicating liquids passing into any State or remaining therein for use, consumption, sale, or storage, shall be subject to the laws of the State as if such liquids had been produced in the State.

114. A State shall not, without the consent of the Parliament of the Commonwealth, raise or maintain any naval or military force, or impose any tax on property of any kind belonging to the Commonwealth, nor shall the Commonwealth impose any tax on property of any kind belonging to a State.

115. A State shall not coin money, nor make anything but gold and silver coin a legal tender in payment of debts.

116. The Commonwealth shall not make any law for establishing any religion, or for imposing any religious observance, or for prohibiting the free exercise of any religion, and no religious test shall be required as a qualification for any office or public trust under the Commonwealth.

117. A subject of the Queen, resident in any State, shall not be subject in any other State to any disability or discrimination which would not be equally applicable to him if he were a subject of the Queen resident in such other State.

118. Full faith and credit shall be given, throughout the Commonwealth, to the laws, the public Acts and records, and the judicial proceedings of every State.

119. The Commonwealth shall protect every State against invasion and, on the application of the Executive Government of the State, against domestic violence.

120. Every State shall make provision for the detention in its prisons of persons accused or convicted of offences against the laws of the Commonwealth, and for the punishment of persons convicted of such offences, and the Parliament of the Commonwealth may make laws to give effect to this provision.

CHAPTER VI.—NEW STATES.

121. The Parliament may admit to the Commonwealth or establish new States, and may upon such admission or establishment make or impose such terms and conditions, including the extent of representation in either House of the Parliament, as it thinks fit.

122. The Parliament may make laws for the government of any territory surrendered by any State to and accepted by the Commonwealth, or of any territory placed by the Queen under the authority of and accepted by the Commonwealth, or otherwise acquired by the Commonwealth, and may allow the representation of such territory in either House of the Parliament to the extent and on the terms which it thinks fit.

123. The Parliament of the Commonwealth may, with the consent of the Parliament of a State, and the approval of the majority of the electors of the State voting upon the question, increase, diminish, or otherwise alter the limits of the State, upon such terms and conditions as may be agreed on, and may, with the like consent, make provision respecting the effect and operation of any increase or diminution or alteration of territory in relation to any State affected.

124. A new State may be formed by separation of territory from a State, but only with the consent of the Parliament thereof, and a new State may be formed by the union of two or more States or parts of States, but only with the consent of the Parliaments of the States affected.

CHAPTER VII.—MISCELLANEOUS.

125. The seat of Government of the Commonwealth shall be determined by the Parliament, and shall be within territory which shall have been granted to or acquired by the Commonwealth, and shall be vested in and belong to the Commonwealth, and shall be in the State of New South Wales, and be distant not less than one hundred miles from Sydney.

Such territory shall contain an area of not less than one hundred square miles, and such portion thereof as shall consist of Crown lands shall be granted to the Commonwealth without any payment therefor.

The Parliament shall sit at Melbourne until it meet at the Seat of Government.

126. The Queen may authorize the Governor-General to appoint any person, or any persons jointly or severally, to be his deputy or deputies within any part of the Commonwealth, and in that capacity to exercise during the pleasure of the Governor-General such powers and functions of the Governor-General as he thinks fit to assign to such deputy or deputies, subject to any limitations expressed or directions given by the Queen; but the appointment of such deputy or deputies shall not affect the exercise by the Governor-General himself of any power or function.

127. In reckoning the numbers of the people of the Commonwealth, or of a State or other part of the Commonwealth, aboriginal natives shall not be counted.

CHAPTER VIII.—ALTERATION OF THE CONSTITUTION.

128. This Constitution shall not be altered except in the following manner:—

The proposed law for the alteration thereof must be passed by an absolute majority of each House of the Parliament, and not less than two nor more than six months after its passage through both Houses the proposed law shall be submitted in each State to the electors qualified to vote for the election of members of the House of Representatives.

But if either House passes any such proposed law by an absolute majority, and the other House rejects or fails to pass it or passes it with any amendment to which the first-mentioned House will not agree, and if after an interval of three months the first-mentioned House in the same or the next session again passes the proposed law by an absolute majority with or without any amendment which has been made or agreed to by the other House, and such other House rejects or fails to pass it or passes it with any amendment to which the first-mentioned House will not agree, the Governor-General may submit the proposed law as last proposed by the first-mentioned House, and either with or without any amendments subsequently agreed to by both Houses, to the electors in each State qualified to vote for the election of the House of Representatives.

When a proposed law is submitted to the electors the vote shall be taken in such manner as the Parliament prescribes. But until the qualification of electors of members of the House of Representatives becomes uniform throughout the Commonwealth, only one-half the electors voting for and against the proposed law shall be counted in any State in which adult suffrage prevails.

And if in a majority of the States a majority of the electors voting approve the proposed law, and if a majority of all the electors voting also approve the proposed law, it shall be presented to the Governor-General for the Queen's assent.

No alteration diminishing the proportionate representation of any State in either House of the Parliament, or the minimum number of representatives of a State in the House of Representatives, or increasing, diminishing, or otherwise altering the limits of the State, or in any manner affecting the provisions of the Constitution in relation thereto, shall become law unless the majority of the electors voting in that State approve the proposed law.

SCHEDULE.

OATH.

I, *A.B.*, do swear that I will be faithful and bear true allegiance to Her Majesty Queen Victoria, Her heirs and successors according to law. So HELP ME GOD!

AFFIRMATION.

I, *A.B.*, do solemnly and sincerely affirm and declare that I will be faithful and bear true allegiance to Her Majesty Queen Victoria, Her heirs and successors according to law.

(NOTE.—*The name of the King or Queen of the United Kingdom of Great Britain and Ireland for the time being is to be substituted from time to time.*)

3. **The Royal Proclamation.**—The preceding Act received the Royal assent on 9th July, 1900. This made it lawful to declare that the people of Australia should be united in a Federal Commonwealth. This proclamation, made on 17th September, 1900, constituted the Commonwealth as from 1st January, 1901; it read as follows:—

BY THE QUEEN.

A PROCLAMATION.

(Signed) VICTORIA R.

WHEREAS by an Act of Parliament passed in the Sixty-third and Sixty-fourth Years of Our Reign, intituled "An Act to constitute the Commonwealth of *Australia*," it is enacted that it shall be lawful for the Queen, with the advice of the Privy Council, to declare by Proclamation, that, on and after a day therein appointed, not being later than One year after the passing of this Act, the people of *New South Wales, Victoria, South Australia, Queensland, and Tasmania*, and also, if Her Majesty is satisfied that the people of *Western Australia* have agreed thereto, of *Western Australia*, shall be united in a Federal Commonwealth under the name of the Commonwealth of *Australia*.

And whereas We are satisfied that the people of *Western Australia* have agreed thereto accordingly.

We therefore, by and with the advice of Our Privy Council, have thought fit to issue this Our Royal Proclamation, and We do hereby declare that on and after the First day of *January* One thousand nine hundred and one, the people of *New South Wales, Victoria, South Australia, Queensland, Tasmania, and Western Australia* shall be united in a Federal Commonwealth under the name of the Commonwealth of *Australia*.

Given at Our Court at *Balmoral* this Seventeenth day of *September*, in the Year of Our Lord One thousand nine hundred, and in the Sixty-fourth Year of Our Reign.

GOD SAVE THE QUEEN.

§ 7. The External Territories of Australia.

1. **Transfer of Norfolk Island.**—In 1856, Norfolk Island was created a distinct and separate settlement under the jurisdiction of New South Wales. Later, in 1896, it was made a dependency under the Governor of that colony and finally by the passage of the Norfolk Island Act 1913 it was accepted as a Territory of the Commonwealth of Australia. The island is situated in latitude 29° 3' 3" S., longitude 167° 57' 5" E., and comprises an area of 8,528 acres.

2. **Transfer of British New Guinea or Papua.**—Under the administration of the Commonwealth, but not included in it, is British New Guinea or Papua, finally annexed by the British Government in 1884. This Territory was for a number of years administered by the Queensland Government, but was transferred to the Commonwealth by proclamation on 1st September, 1906, under the authority of the Papua Act (Commonwealth) of 16th November, 1905. The area of Papua is about 90,540 square miles.

3. **Territory of New Guinea.**—In 1919, it was agreed by the Principal Allied and Associated Powers that a mandate should be conferred on Australia for the government of the former German territories and islands situated in latitude between the Equator and 8° S., and in longitude between 141° E. and 159° 25' E. The mandate was issued

by the League of Nations on 17th December, 1920. The Governor-General of the Commonwealth was authorized to accept the mandate by the New Guinea Act 1920, which also declared the area to be a Territory under the authority of the Commonwealth by the name of the Territory of New Guinea. The Territory comprises about 93,000 square miles, and the administration under the mandate dated from 9th May, 1921. New Guinea is now administered under a Trusteeship Agreement with the United Nations, approved on 13th December, 1946.

4. **Nauru.**—In 1919, the Governments of the United Kingdom, Australia and New Zealand entered into an agreement to make provision for the exercise of the mandate conferred on the British Empire for the administration of the island of Nauru, and for the mining of the phosphate deposits thereon. The island is situated in latitude $0^{\circ} 32'$ South and longitude $166^{\circ} 55'$ East and comprises about 5,263 acres. The agreement provided that the administration of the island should be vested in an administrator, the first appointment to be made by the Commonwealth Government, and thereafter in such manner as the three Governments decided. The agreement was approved by the Commonwealth Parliament in the Nauru Island Agreement Act 1919, and a supplementary agreement of 30th May, 1923, which gave the Government immediately responsible for the administration greater powers of control over the Administrator, was approved in 1932. So far, the administrators have been appointed by the Commonwealth Government. The administration under the mandate operated from 17th December, 1920, to 1st November, 1947, since when Nauru has been administered under a Trusteeship Agreement with the United Nations.

5. **Territory of Ashmore and Cartier Islands.**—By Imperial Order in Council, dated 23rd July, 1931, Ashmore Islands, known as Middle, East and West Islands, and Cartier Island, situated in the Indian Ocean off the north-west coast of Australia, were placed under the authority of the Commonwealth. The islands were accepted by the Commonwealth in the Ashmore and Cartier Islands Acceptance Act 1933 under the name of the Territory of Ashmore and Cartier Islands on 10th May, 1934. The Act authorized the Governor of Western Australia to make ordinances having the force of law in and in relation to the Territory. An amendment to the Act in July, 1938, annexed the islands to the Northern Territory, whose laws, ordinances and regulations, wherever applicable, thereupon applied.

6. **Australian Antarctic Territory.**—An Imperial Order in Council of 7th February, 1933, placed under Australian authority "all the islands and territories other than Adélie Land which are situated south of the 60th degree of South Latitude and lying between the 160th degree of East Longitude and the 45th degree of East Longitude."

The Order came into force with a proclamation issued by the Governor-General on 24th August, 1936, after the Commonwealth Parliament had passed the Australian Antarctic Territory Acceptance Act on 13th June, 1933. The boundaries of Adélie Land were definitely fixed by a decree of 1st April, 1938, as latitude 60° S., longitude 136° E. and longitude 142° E.

7. **Territory of Heard and McDonald Islands.**—Heard and McDonald Islands, about 2,500 miles south-west of Fremantle, were transferred from United Kingdom to Australian control as from 26th December, 1947.

8. **Territory of Cocos (Keeling) Islands.**—The Cocos (Keeling) Islands Act 1955 provided for the acceptance of the Cocos Islands, in the Indian Ocean, as a Territory under the authority of the Commonwealth of Australia and was parallel to an Act of the United Kingdom Parliament transferring authority over the islands to the Commonwealth. Consequent on the passing of these Acts, Her Majesty, by Order in Council, specified 23rd November, 1955, as the date of transfer. From that date, the islands came under Australian administration and an Official Representative of Australia was appointed to take charge of the local administration of the islands.

9. **Territory of Christmas Island.**—The Christmas Island Act 1958 provided for the acceptance of Christmas Island, in the Indian Ocean, as a Territory under the authority of the Commonwealth of Australia. Complementary legislation having been passed by the Parliament of the United Kingdom, the island was transferred to the Australian administration on 1st October, 1958, and an Official Representative was appointed to administer the Territory.

CHAPTER II.

PHYSIOGRAPHY.

§ 1. General Description of Australia.

1. **Geographical Position.**—(i) *General.* The Australian Commonwealth, which includes the island continent of Australia proper and the island of Tasmania, is situated in the Southern Hemisphere, and comprises in all an area of 2,971,081 square miles, the mainland alone containing 2,944,866 square miles. Bounded on the west and east by the Indian and Pacific Oceans respectively, it lies between longitudes 113° 9' E. and 153° 39' E., while its northern and southern limits are the parallels of latitude 10° 41' S. and 43° 39' S., or, excluding Tasmania, 39° 8' S. On its north are the Timor and Arafura Seas and Torres Strait, on its south the Southern Ocean. The extreme points are Steep Point on the west, Cape Byron on the East, Cape York on the north, and South-East Cape or, if Tasmania be excluded, Wilson's Promontory, on the south.

(ii) *Tropical and Temperate Regions.* Of the total area of Australia, nearly 39 per cent. lies within the tropics. Taking the latitude of the Tropic of Capricorn as 23° 30' S., the areas within the tropical and temperate zones are approximately as follows:—

AUSTRALIA: AREAS OF TROPICAL AND TEMPERATE REGIONS.

(Square miles.)

Area.	N.S.W. (a)	Vic.	Qld.	S. Aust.	W. Aust.	Tas.	N. Terr.	Total.
Within Tropical Zone ..			360,642		364,000		426,320	1,150,962
„ Temperate Zone	310,372	87,884	306,358	380,070	611,920	26,215	97,300	1,820,119
Total Area ..	310,372	87,884	667,000	380,070	975,920	26,215	523,620	2,971,081

(a) Includes Australian Capital Territory (939 square miles).

Fifty-four per cent. of Queensland lies within the tropical zone and 46 per cent. in the temperate zone; 37 per cent. of Western Australia is tropical and 63 per cent. temperate; while 81 per cent. of the Northern Territory is tropical and 19 per cent. temperate. All of the remaining States lie within the temperate zone. The tropical part of Australia thus comprises about 39 per cent. of the whole of the continent.

2. **Area of Australia compared with Areas of other Countries.**—The area of Australia is almost as great as that of the United States of America, four-fifths of that of Canada, nearly three-quarters of the whole area of Europe, and about 25 times that of Great Britain and Ireland. The areas of Australia and of certain other countries are shown in the table on the following page.

AREA OF AUSTRALIA AND OF OTHER COUNTRIES, *circa* 1958.

('000 square miles.)

Country.	Area.	Country.	Area.
Continental Divisions—		Africa—continued.	
Europe (a)	1,903	Angola	481
Asia (a)	10,480	Union of South Africa ..	472
U.S.S.R. (Europe and Asia)	8,650	Sudanese Republic ..	465
Africa	11,700	Niger	459
North and Central America		United Arab Republic (b) ..	457
and West Indies ..	9,359	Ethiopia and Eritrea ..	457
South America	6,870	Mauritania	419
Oceania	3,300	Nigeria and Protectorate (c)	373
<i>Total, excluding Arctic</i>		Tanganyika Territory ..	362
<i>and Antarctic Conts. ..</i>	52,262	South-West Africa ..	318
		Mozambique	302
Europe (a)—		Bechuanaland Protectorate	275
France	213	Central African Republic ..	238
Spain (incl. possessions) ..	194	Malagasy Republic ..	228
Sweden	174	Kenya and Protectorate ..	225
Germany	138	Other	1,717
Finland	130	<i>Total</i>	11,700
Norway	125		
Poland	120	North and Central America—	
Italy	116	Canada	3,851
Yugoslavia	99	United States of America (d)	3,609
United Kingdom	94	Greenland	840
Romania	92	Mexico	760
Other	408	Nicaragua	57
<i>Total (a)</i>	1,903	Cuba	44
		Honduras	43
Asia (a)—		Other	155
China, Mainland	3,769	<i>Total</i>	9,359
India and Nepal	1,314		
Iran	636	South America—	
Saudi Arabia	618	Brazil	3,287
Mongolian People's Republic	591	Argentina	1,073
Indonesia	576	Peru	496
Pakistan	365	Colombia (excl. of Panama)	440
Turkey	301	Bolivia	424
Burma	262	Venezuela	352
Afghanistan	251	Chile	286
Thailand	198	Paraguay	157
Iraq	172	Ecuador	105
Other	1,427	Other	250
<i>Total (a)</i>	10,480	<i>Total</i>	6,870
U.S.S.R.	8,650	Oceania—	
		Commonwealth of Australia	2,971
Africa—		New Zealand	103
Sudan	968	New Guinea (e)	93
Algeria	920	Papua	91
Belgian Congo	905	Other	42
Libya	679	<i>Total</i>	3,300
Chad	496		
Rhodesia and Nyasaland ..	484		

(a) Excludes U.S.S.R., shown below.

(b) Egypt and Syria.

(c) Includes British Cameroons.

d) Excludes State of Hawaii, which is included in Other Oceania.

(e) Australian Trust Territory.

The areas shown in the table are obtained from the *Demographic Yearbook*, 1959, published by the Statistical Office of the United Nations and the countries have been arranged in accordance with the continental groups used therein.

3. Areas of States and Territories, Coastal Configuration and Standard Times.—As already stated, Australia consists of six States and the Northern and Australian Capital Territories. Particulars of areas, coastline and standard times are shown in the following table:—

AUSTRALIA: AREAS OF STATES AND TERRITORIES, COASTLINE AND STANDARD TIMES.

State or Territory.	Area.	Proportion of Total Area.	Coastline.	Area per Mile of Coastline.	Standard Times.	
					Meridian Selected.	Ahead of G.M.T.
	Sq. miles.	%	Miles.	Sq. miles.		Hours.
New South Wales ..	309,433	10.42	(a) 700	(a) 443	150° E.	10
Victoria ..	87,884	2.96	680	129	150° E.	10
Queensland ..	667,000	22.45	3,000	222	150° E.	10
South Australia ..	380,070	12.79	1,540	247	142°30' E.	9½
Western Australia ..	975,920	32.85	4,350	224	120° E.	8
Northern Territory ..	523,620	17.62	1,040	503	142°30' E.	9½
Australian Capital Territory ..	939	0.03	..	..	150° E.	10
<i>Mainland</i> ..	<i>2,944,866</i>	<i>99.12</i>	<i>11,310</i>	<i>260</i>	..	..
Tasmania ..	26,215	0.88	900	29	150° E.	10
Australia ..	2,971,081	100.00	12,210	243	..	..

(a) Includes Australian Capital Territory.

There are few striking features in the configuration of the coast; the most remarkable indentations are the Gulf of Carpentaria on the north and the Great Australian Bight on the south. The Cape York Peninsula on the extreme north is the only other remarkable feature in the outline. In Official Year Book No. 1, an enumeration was given of the features of the coastline of Australia (*see* pp. 60–68).

Prior to 1895, the official time adopted in the several colonies was for most purposes the mean solar time of the capital city of each. In 1894 and 1895, after several conferences had been held, legislation was enacted by each of the colonies whereby the mean solar times of the meridians of east longitude 120° (Western Australia), 135° (South Australia and Northern Territory) and 150° (Queensland, New South Wales, Victoria and Tasmania) were adopted. In 1898, however, the South Australian legislature amended its earlier provision and adopted the mean solar time of the meridian 142° 30' E. longitude as the standard time for that colony (and the Northern Territory). For further information on this subject, *see* Official Year Book No. 39, page 65.

4. Geographical Features of Australia.—(i) *General*. The following description is only a broad summary of the main physical characteristics of the Australian continent. For greater detail concerning particular geographical elements, earlier issues of the Official Year Book should be consulted. The list of special articles, etc., at the end of this volume indicates the nature of the information available and its position in the various issues.

(ii) *Orography of Australia*. (a) *General Description of the Surface*. Owing to the absence of any very high mountain chains, and to the great depression in the centre of Australia, the average elevation of the Australian continent above the level of the surrounding oceans is less than that of any of the other continents. Three-quarters of the land-mass lies between the 600 and 1,500 feet contours in the form of a huge plateau.

A section through the continent from east to west, at the point of its greatest breadth, shows first a narrow belt of coastal plain. This plain, extending north and south along the whole eastern coast, is well watered by rivers. It is of variable width, seldom more than sixty or seventy miles, and occasionally only a few miles, the average being roughly about forty to fifty miles. Bordering this plain is the Great Dividing Range which extends from the north of Queensland to the south of New South Wales and thence sweeps westward through Victoria. This range which rises, often abruptly, from the plain, frequently presents bold escarpments on its eastern face, but the descent on its western slopes is gradual, until, in the country to the north of Spencer's Gulf, the plain is not above sea-level and occasionally even below it. Thence there is another almost imperceptible rise until the mountain ranges of Western Australia are reached, and beyond these lies another coastal plain.

The great central plain or plateau is the most distinctive feature of the Australian continent and the peculiarities of Australia's climate can probably be largely ascribed thereto.

(b) *Mountain Systems.* The main mountain feature of Australia is the Great Dividing Range, which runs along the whole eastern coast of the continent and can be traced over the islands of Torres Strait to New Guinea, while in the south one branch sweeps westwards towards the boundary of Victoria and South Australia and the other, the main branch, terminates in Tasmania.

This mountain system is at no place more than 250 miles from the eastern coastline and it approaches to less than 30 miles. On the whole, it is much closer to the coast in both New South Wales and Victoria than it is in Queensland, the corresponding average distances being about 70, 65 and 130 miles respectively. There is no connexion between the mountains of the eastern and other States of Australia.

The mountains of Australia are relatively low. Thus, in Queensland, the Great Dividing Range reaches a height above sea-level of less than 5,500 feet, the highest peak being Mount Bartle Frere. Mount Kosciusko, in New South Wales, is only about 7,300 feet, and Mount Bogong, in Victoria, about 6,500 feet high. In South Australia and Western Australia, heights of three to five thousand feet are attained. In Tasmania, the greatest height is only a little more than 5,000 feet. The fact that there are no high mountains in Australia is also of considerable importance in considering the climate of Australia.

It is probable that at one time Tasmania was connected with the mainland. As the Great Dividing Range can, in the north, be traced from Cape York across Torres Strait to New Guinea, so its main axis can be followed across the shallow waters of Bass Strait and its islands from Wilson's Promontory to Tasmania, which may be said to be completely occupied by ramifications of the chain. The central part of the island is occupied by an elevated plateau, roughly triangular in shape, and presenting bold fronts to the east, west and north. This does not extend in any direction more than about 60 miles. The plateau rests upon a more extensive tableland, the contour of which closely follows the coastline, and occasionally broadens out into low-lying tracts not much above sea-level. The extreme south of the island is rugged in character.

(iii) *Hydrology of Australia.* (a) *Rainfall.* On the whole, Australia is a country with a limited rainfall. This is immediately evident on studying its river systems, its lakes, and its artesian areas. Its one large river system is that of the Murray and Darling Rivers, of which the former stream is the larger and more important. Many of the rivers of the interior run only after heavy rains. Depending almost entirely on rainfall, a consequence of the absence of high mountains, they drain large areas with widely varying relation between rainfall and flow. Thus it has been estimated that not more than 10 per cent. of the rainfall on the catchment area of the Darling River above Bourke (New South Wales) discharges itself past that town. The rate of fall is often very slight.

(b) *Rivers.* The rivers of Australia may be divided into two major classes, those of the coastal plains with moderate rates of fall; and those of the central plains with very slight fall. Of the former, not many are navigable for any distance from their mouths and bars make many of them difficult of access or inaccessible from the sea.

The two longest rivers of the northern part of the eastern coast are the Burdekin, discharging into Upstart Bay, with a catchment area of 53,500 square miles, and the Fitzroy, which reaches the sea at Keppel Bay and drains about 55,600 square miles.

The Hunter is the largest coastal river of New South Wales, draining about 11,000 square miles before it reaches the sea at Newcastle. The Murray River, with its great tributary the Darling, drains a considerable part of Queensland, the major part of New South Wales and a large part of Victoria. It debouches into the arm of the sea known as Lake Alexandrina, on the eastern side of the South Australian coast. The total length of the Murray is about 1,600 miles, 400 being in South Australia and 1,200 constituting the boundary between New South Wales and Victoria. The total length of the Murray-Darling from the source of the Darling to the mouth of the Murray is about 2,300 miles. In good seasons, the river is navigable for a considerable proportion of its length.

The rivers of the north-west coast of Australia (Western Australia) are of considerable size, e.g., the Murchison, Gascoyne, Ashburton, Fortesque, De Grey, Fitzroy, Drysdale and Ord. So also are those in the Northern Territory, e.g., the Victoria and Daly. The former of these, estimated to drain 90,000 square miles, is said to be navigable for 50 miles.

The rivers on the Queensland side of the Gulf of Carpentaria, such as the Gregory, Leichhardt, Cloncurry, Gilbert and Mitchell, are also of considerable size.

Owing to the small amount of fall of many of the interior rivers, they may flood hundreds of miles of country in wet seasons, while in dry seasons they form a mere succession of waterholes or are entirely dry. It is this fact that explains the apparently conflicting reports of the early explorers, one regarding the interior as an inland sea, and another as a desert.

The rivers of Tasmania have short and rapid courses, as might be expected from the configuration of the territory.

(c) *Lakes*. The "lakes" of Australia may be divided into three classes, true permanent lakes; lakes which, being very shallow, become mere morasses in dry seasons or even dry up and finally present a cracked surface of salt and dry mud; and lakes which are really inlets of the ocean, opening out into a lake-like expanse.

The second class is the only one which seems to demand special mention. These are a characteristic of the great central plain of Australia. Some of them, such as Lakes Torrens, Gairdner, Eyre and Frome, are of considerable extent.

(d) *Artesian Areas*. A considerable tract of the plain country of New South Wales and Queensland carries a water-bearing stratum, usually at a great depth. A large number of artesian bores have been put down, from which there is a considerable flow. These are of great value and render usable large areas which otherwise would be difficult to occupy even for pastoral purposes.

For further information on this subject, see Chapter VIII.—Water Conservation and Irrigation.

5. *Fauna, Flora, Geology and Seismology of Australia*.—Special articles dealing with these features have appeared in previous issues of the Official Year Book, but limits of space preclude their repetition in each volume. The nature and location of these articles can be readily ascertained from the special index preceding the general index at the end of this volume.

§ 2. Climate and Meteorology of Australia.

NOTE.—This Section has been prepared by the Director of the Commonwealth Bureau of Meteorology, and the various States and Territories have been arranged in the standard order adopted by that Bureau.

1. *Introductory*.—Previous issues of the Official Year Book, notably No. 3, pages 79–83, and No. 4, pages 84 and 87, contained outlines of the history of Australian meteorology and the creation and organization of the Commonwealth Bureau of Meteorology. Official Year Book No. 38, pages 30–32, contained paragraphs devoted to (i) Organization of the Meteorological Service; (ii) Meteorological Publications; (iii) Equipment; and (iv) Meteorological Divisions.

By reason of its insular geographical position and the absence of striking physical features, whether in marine gulfs or in important mountains, Australia is, on the whole, less subject to extremes of weather than are regions of similar area in other parts of the globe, and latitude for latitude Australia is generally more temperate.

The average elevation of the surface of the land is low, probably close to 900 feet above the sea. The altitudes range up to a little more than 7,300 feet, hence the Australian climate displays a great many features, from the characteristically tropical to what is essentially alpine, a fact indicated in some measure by the name Australian Alps given to the southern portion of the Great Dividing Range.

On the coast, the rainfall is often abundant and the atmosphere moist, but in some portions of the interior it is very limited, and the atmosphere dry. The distribution of forest, therefore, with its climatic influence, is very uneven. In the interior, in places, there are fine belts of trees, but there are also large areas which are treeless, and here the air is hot and parching in summer. Again, on the coast, even so far south as latitude 35°, the vegetation is tropical in its luxuriance, and to some extent also in character.

2. *Temperature*.—(i) *Effective Temperature*. When a meteorologist speaks of temperature, he means the temperature of the air indicated by a thermometer sheltered from precipitation, from direct rays of the sun and from radiation of heat from the ground

and neighbouring objects, yet freely exposed to the circulation of the air. In other words, he means temperature measured under conditions standardized as nearly as possible in a Stevenson Screen, which is the standard housing for meteorological thermometers.

This shade temperature as measured by a "dry bulb" thermometer shows only the actual temperature experienced by dry inorganic substances, not the *sensible* temperatures felt by organic bodies. In the case of human beings, *sensible* temperature is affected by the rate of conduction of heat to or from the body by moving air and also by the rate of cooling due to evaporation from the skin and respiratory passages. The wind and humidity therefore determine the *sensible* temperature.

The humidity (relative humidity) is determined from the readings of the dry and wet bulb thermometers. Of late years, however, with increasing interest in human comfort in tropical climates, another term, *effective* temperature, has come into use. It may be defined as "the temperature of a still, saturated atmosphere which would on the average produce the same feeling of warmth or cold as the atmosphere in question".*

The 80° F. isotherm is confined to a very narrow tract of country on the north-west coast of Western Australia. The 75° F. isotherm extends, broadly, from Onslow on the north-west coast of Western Australia to Daly Waters to Camooweal to Moreton in Cape York Peninsula following in a general way the coastline of Northern Australia but from 100 to 300 miles inland.

Later investigations have established "comfort zones"† bounded by limits of effective temperature within which people will feel comfortable. American research workers have determined the following figures‡:—

COMFORT ZONES: EFFECTIVE TEMPERATURES.

Season.			No subjects feel comfortable below—	Fifty per cent. of subjects feel comfortable between—	No subjects feel comfortable above—
Winter..	..	..	60° F.	63° and 71° F.	74° F.
Summer	..	..	64° F.	66° and 75° F.	79° F.

Queensland investigators§ in recent years have divided some towns of Queensland into three classes on the basis of deviation from comfort:—

Class 1 (Sub-tropics).—Quite suitable for Caucasian habitation—Rockhampton, Bundaberg, Brisbane, Longreach, Charleville.

Class 2 (Marginal tropics).—Suitable for Caucasian habitation, but requires adaptation in summer—Mackay, Townsville.

Class 3 (Tropics).—(a) Permissible for Caucasian habitation but requires selection and marked adaptation—Cardwell, Cairns, Cloncurry. (b) Not suitable for continuous Caucasian habitation—Cape York, Burketown.

These results of recent years bear out investigations made previously in Australia|| in which the atmospheric vapour pressure was used as a measure of comfort, its value for this purpose being that it has equal effect in both indoor and outdoor climates. The limits of comfort range from 0.2 to 0.5 inch of vapour pressure. After drawing isopleths for effective temperature (not corrected for altitude), mean vapour pressure reduced to a logarithmic scale, and mean wet bulb temperature, it is found that there is close agreement in defining zones of relative discomfort.

(ii) *Seasons*. The Australian seasons are:—Summer, December to February; autumn, March to May; winter, June to August; spring, September to November. In most parts of Australia, January is the hottest month, but in Tasmania and southern Victoria, February is the hottest; in the tropical north, probably because the cooling "monsoon" rains occur in late summer, December is the hottest month, and at Darwin, November.

On a rainfall basis, in the tropical north, the year is divisible into "wet" and "dry" seasons, but on the basis of temperatures and physical comfort the "dry" season can be further sub-divided into two parts—"cool dry" and "warm dusty".¶

(a) "*Cool dry*" Season. From May to August. The average maximum temperature ranges from 80° to 85° F., the relative humidity is low and in inland areas cold nights are experienced when the temperature drops to 40° F. The skies generally are cloudless, but in about one year in three during June or July one to two inches of rain fall.

* Houghton, F. C., Teague, W. W. and Miller, W. E. (1926) Amer. Soc. Heat. Vent. Engrs.
 † Yaglou, C. P. (1926) J. Industr. Hyg. ‡ Yaglou, C. P. (1927) Ibid. § Lee, D. H. K.
 Trans. Roy. Soc. Trop. Med. and Hyg. (1940) Vol. XXXII. || Barkley, H. Zones of Relative
 Physical Comfort in Australia, Met. Bull. 20, 1934. ¶ Maze, W. H. Austn. Geog., June, 1945.
 Settlement in E. Kimberleys.

(b) "*Warm dusty*" Season. From the end of August, temperatures rise and reach a maximum in October or the beginning of November. Temperatures of over 120°F. have been recorded.

(c) "*Wet*" Season. After the first of the heavy storms, the maximum temperatures fall but still remain high with high relative humidity. At Wyndham during January, 1944, the minimum temperature did not drop below 75°F. for fourteen consecutive days. A maximum of over 100°F. was recorded on each rainless day.

In Central and Northern Australia, during the hottest months, the average temperatures range from 80° to 85° F., whereas in Southern Australia they vary from 65° to 70° F. (see maps pp. 33, 34).

Throughout Australia, the coldest month is July, when only a very narrow strip of the northern sea-board has an average temperature as high as 75° F. Over the southern half of the continent, July temperatures range from 55° to 45° F. at elevations below 1,500 feet and fall as low as 35° on the Australian Alps (see maps pp. 35, 36). Here the temperature seldom, if ever, reaches 100° F. even in the hottest of seasons. Hotham Heights (6,100 feet above Mean Sea Level) recorded the highest maximum of 82.0° F. on 20th January, 1935. In winter, readings slightly below zero are occasionally recorded on the extreme heights.

Tasmania, as a whole, enjoys a moderate and equable range of temperature throughout the year, although occasionally hot winds may cause the temperature to rise to 100° F. in the eastern part of the State.

(iii) *Comparisons with other Countries.* In respect of Australian temperatures generally, it may be pointed out that the mean annual isotherm for 70° F. extends in South America and South Africa as far south as latitude 33° S., while in Australia it reaches only as far south as latitude 30° S., thus showing that, on the whole, Australia has, latitude for latitude, a more temperate climate than other places in the Southern Hemisphere.

The comparison is even more favourable when the Northern Hemisphere is included, for in the United States of America the 70° F. isotherm extends in several of the western States as far north as latitude 41° N. In Europe, the same isotherm reaches almost to the southern shores of Spain, passing afterwards, however, along the northern shores of Africa till it reaches the Red Sea, when it bends northward along the eastern shore of the Mediterranean till it reaches Syria. In Asia, nearly the whole of the land area south of latitude 40° N. has a mean annual temperature higher than 70° F.

The extreme range of temperature is less than 100° F. over practically the whole of Australia, that figure being only slightly exceeded at a very few places; it is mostly 70° to 90° F. over inland areas, and somewhat less on the coast. In parts of Asia and North America, the extreme range exceeds 130° and 150° F. in some localities.

Along the northern shores of Australia, the temperatures are very equable. At Darwin, for example, the difference in the means for the hottest and coldest month is only 8.4° F., and the extreme readings, or the highest maximum on record and the lowest minimum, show a difference of under 50° F.

The highest temperature recorded in Australia was 127.5° F. at Cloncurry on 16th January, 1889. The world's highest (136° F.) was recorded at Azizia (Tripoli) on 13th August, 1922. The lowest temperature ever recorded in Australia was -8° F. at Charlotte Pass on 14th June, 1945, and again on 22nd July, 1947, as contrasted with the world's lowest recorded temperature, apart from the polar regions, of -90° F. at Verkhoyansk (Siberia) on 5th and 7th February, 1892.

The mean temperatures and the range from the extreme maximum to the extreme minimum temperatures (in whole degrees) of the capital cities of Australia, and a comparison with those of the main cities of some other countries are presented in tabular form in Official Year Book No. 38, page 42.

(iv) *Hottest and Coldest Parts.* A comparison of the temperatures recorded at coast and inland stations shows that in Australia, as in other continents, the range increases, within certain limits, with increasing distance from the coast.

In the interior of Australia, and during exceptionally dry summers, the temperature occasionally reaches or exceeds 120° F. in the shade. The hottest area of the continent is situated in the northern part of Western Australia about the Marble Bar and Nullagine goldfields, where the maximum shade temperature during the summer sometimes exceeds 100° F. continuously for days and weeks. The longest recorded period was 160 days from 31st October, 1923, to 7th April, 1924.

The area affected and the period of duration of the longest heat waves in Australia are shown in the map and diagram on page 37.

(v) *Tabulated Data for Selected Climatological Stations in Australia.* Tables showing normal mean temperature, extreme temperatures and normal rainfall for each month for

selected climatological stations in each State and the Northern Territory appear in Official Year Book No. 40, pages 16–23, and similar data for other selected stations in the Commonwealth in Official Year Book No. 39, pages 41–48. Pages 53–60 of this issue contain this information in respect of Canberra, Darwin and the six State capitals.

(vi) *Frosts*.^{*} The Observer's Handbook of the Meteorological Office, London, gives the following definition:—"Injury to the tissues of growing plants is not caused until the temperature has fallen considerably below the freezing point of water (32° F.) and a 'ground frost' is regarded as having occurred when the thermometer on the grass has fallen to 30.4° F. or below".

In Australia, this definition is adopted for stations equipped with terrestrial minimum thermometers. However, these are few in number, so although many rainfall observers record "hoar frost" when seen, for statistical purposes a screen temperature of 36° F. is taken as indicating light frosts at ground level. For heavy frosts, a screen temperature of 32° F. is taken.

In America, a "killing" frost is defined as a frost "that is generally destructive of vegetation". A "black frost" is the phenomenon arising out of a combination of low temperature and low humidity causing rupturing of plant cells by expansion when freezing of the water which they contain takes place, though frost crystals are not formed on the ground.

The parts of Australia most subject to low temperature are the eastern highlands from about Omeo in Victoria northward to Cambooya and Bybera in Queensland. Most stations in this region experience more than ten nights a month with readings of 32° F. or under for three to five months of the year. In Tasmania, districts on the Central Plateau are subject to such conditions for three to six months of the year. Minimum temperatures of 32° F. are comparatively infrequent in Western Australia except in parts of the south and south-west. In South Australia, the Yongala district is much more subject to such temperatures than other parts of the State. Much of the south-east of Queensland has a higher frequency of such readings than South Australia. Generally speaking, the frequency is controlled by altitude, latitude and, to a lesser degree, by proximity to the sea.

Frosts may occur within a few miles of the coastline over the whole continent, except in the Northern Territory and a considerable part of Northern Queensland. Regions subject to frost in all months of the year comprise portions of the tablelands of New South Wales, the Eastern Highlands and parts of the Central Divide and Western district in Victoria, practically the whole of Tasmania and a small area in the south-west of Western Australia.

A map showing the average annual number of frost-free days (i.e., days on which the temperature does not fall below 36° F.) appears on page 39.

Over most of the interior of the continent, and on the Highlands in Queensland as far north as the Atherton Plateau, frosts appear in April and end in September, but they are infrequent in these months. Minimum temperatures of 32° F. are experienced in most of the sub-tropical interior in June and July.

3. Humidity.—After temperature, humidity is the most important element of climate, particularly as regards its effects on human comfort, rainfall supply and conservation and related problems.

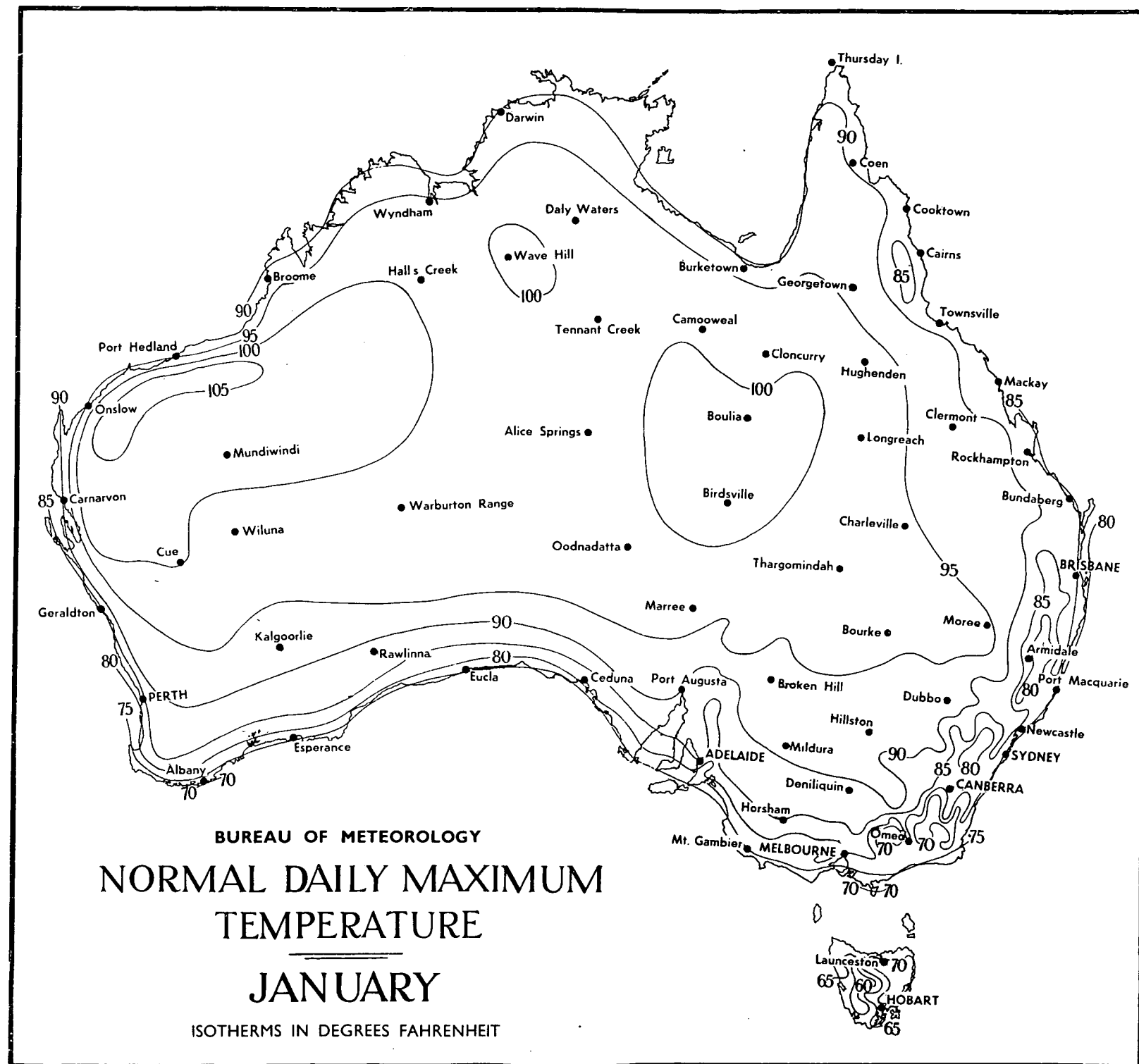
"Vapour pressure" is the pressure exerted by the water vapour in the atmosphere. At any given temperature there is a definite upper limit to the amount of water that can exist as vapour in the atmosphere. When this limit is reached, the air is said to be saturated and the pressure of the water vapour is equal to the "saturation vapour pressure".

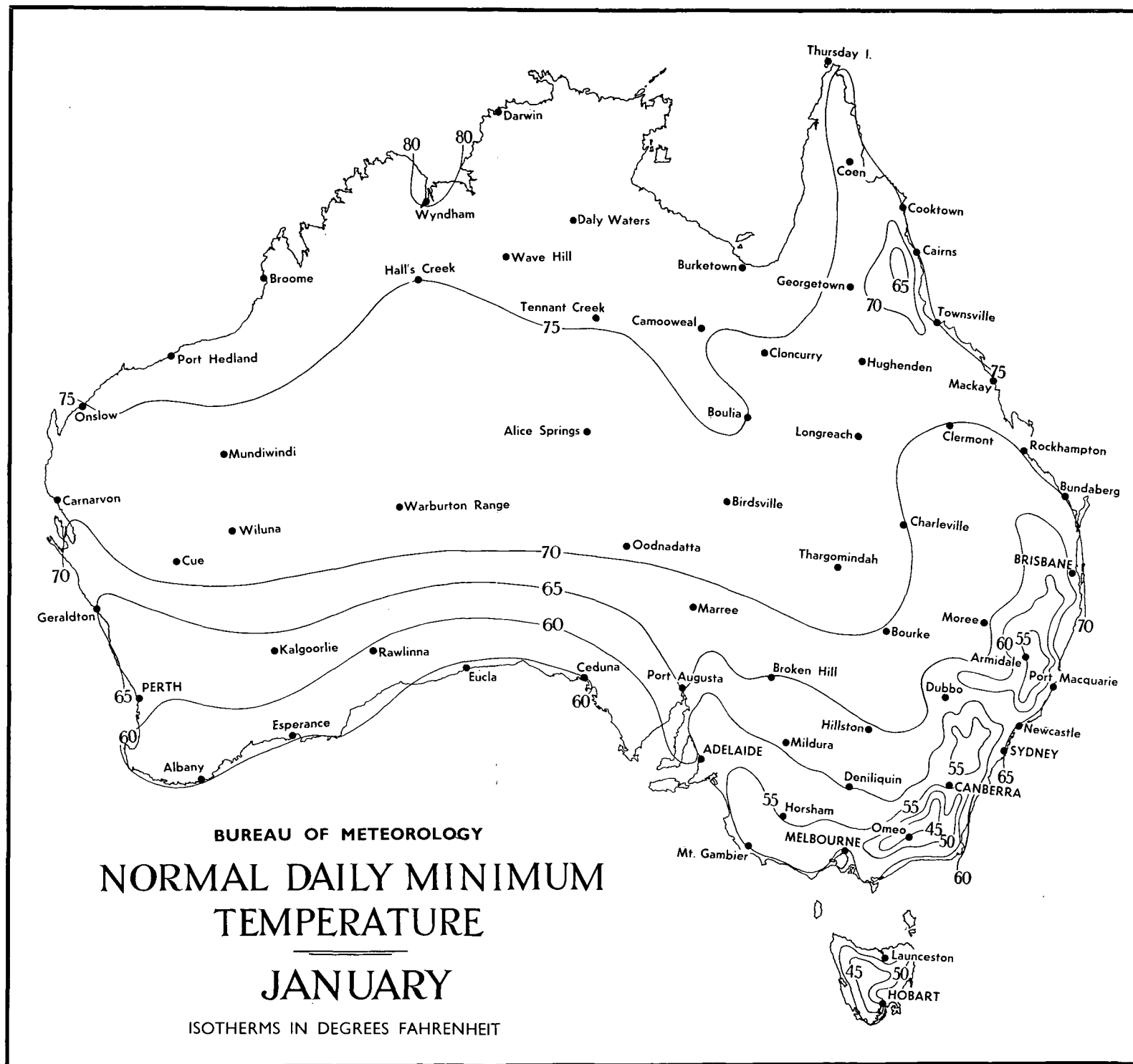
In this publication, the humidity of the air has been expressed by the relative humidity, which is the quotient of the vapour pressure divided by the saturation vapour pressure and multiplied by one hundred. The mean 9 a.m. relative humidity, as well as its highest and lowest recorded mean values at 9 a.m., are shown in the tables of climatological data for the capital cities (see pp. 53–60). The mean monthly vapour pressure has also been added to these tables.

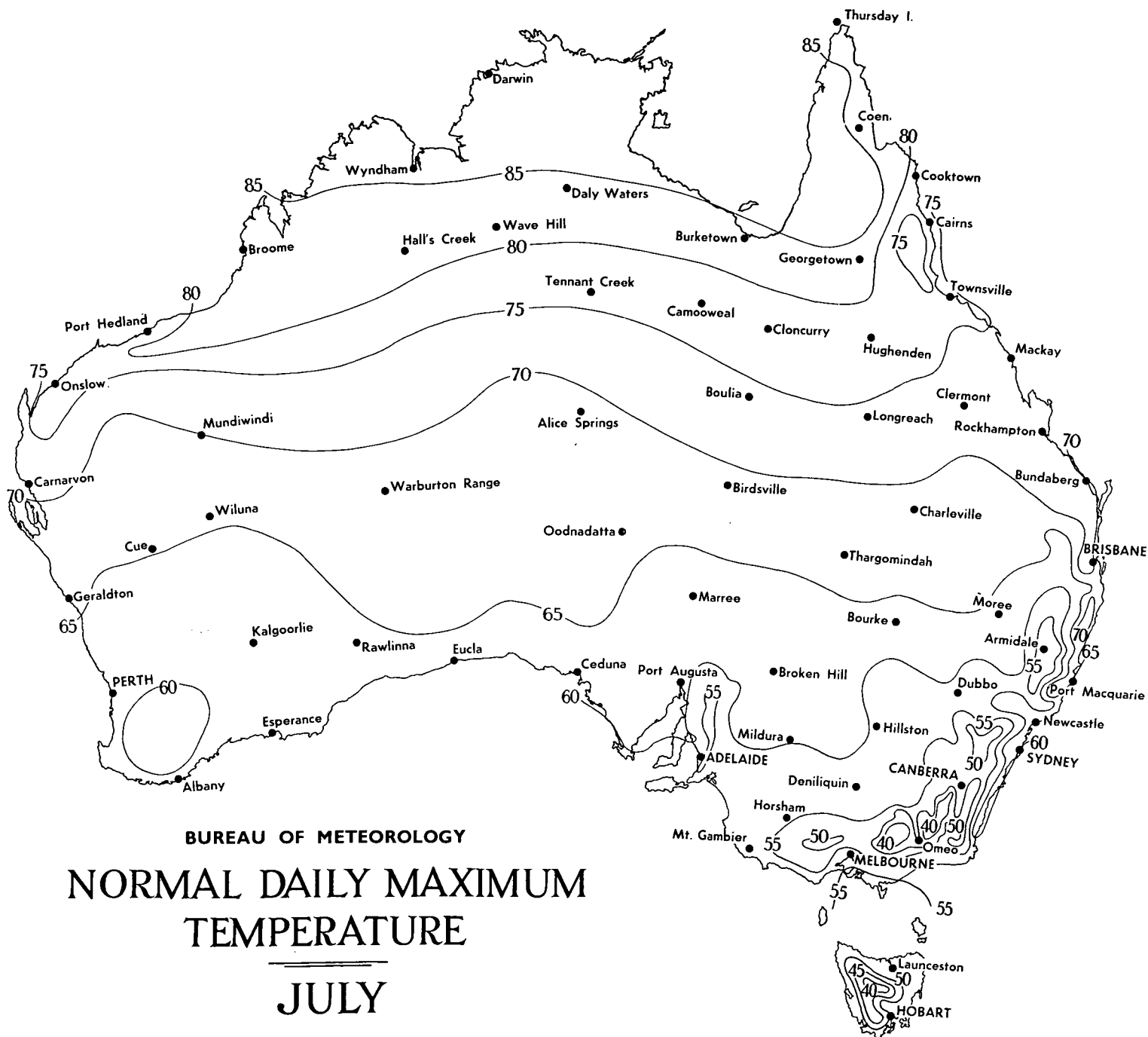
The annual curve of vapour pressure derived from the normal monthly values for this element is comparable with the maximum and minimum temperature curves, but the relative humidities, consisting as they do of the extremes for each month, do not show the normal annual fluctuation which would be approximately midway between the extremes.

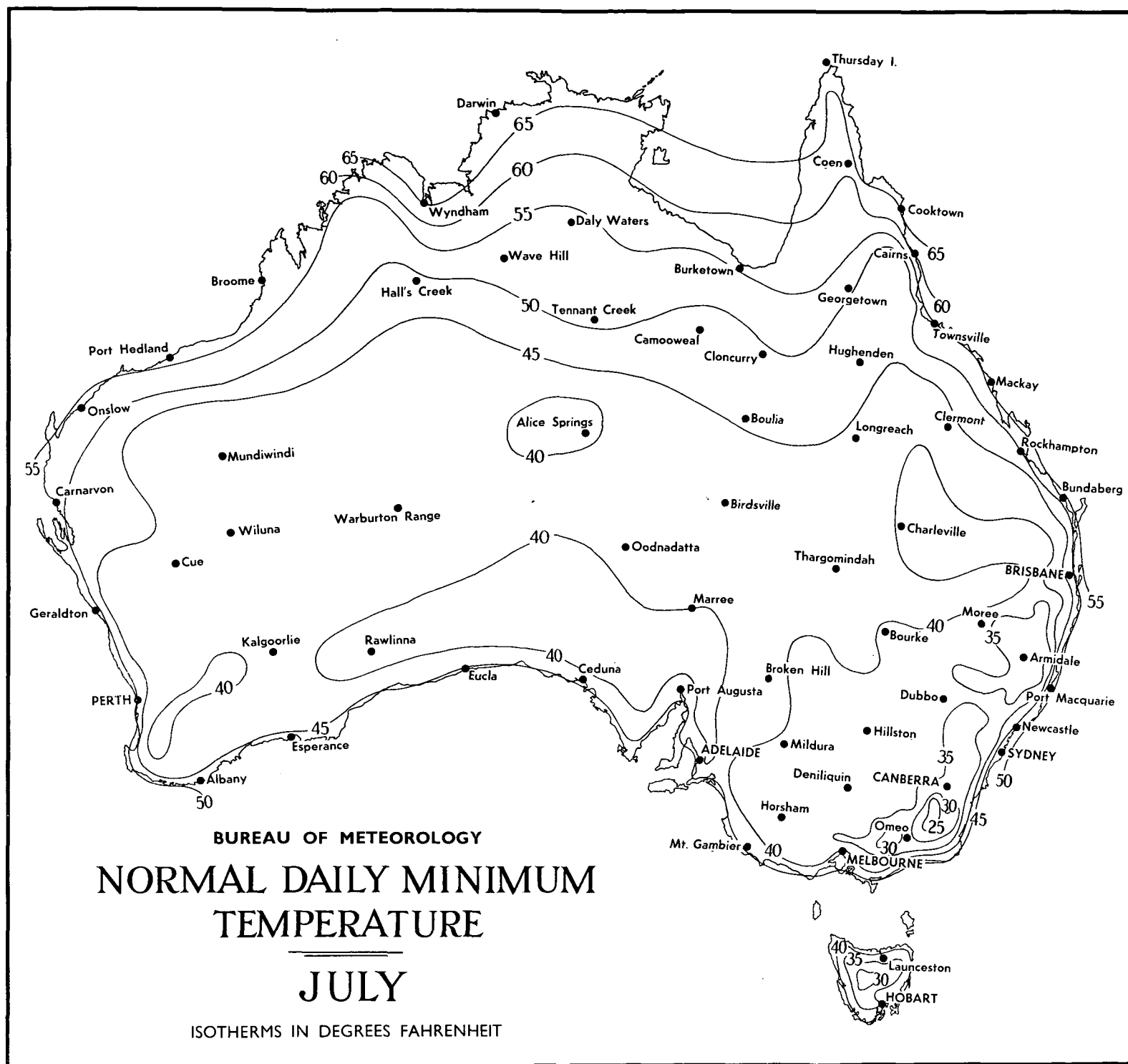
The order of stations in descending values of 9 a.m. vapour pressure is Darwin, Brisbane, Sydney, Perth, Melbourne, Adelaide, Canberra, Hobart and Alice Springs, while the relative humidity at 9 a.m. diminishes in the order, Melbourne, Sydney, Darwin, Brisbane, Canberra, Hobart, Perth, Adelaide and Alice Springs.

^{*} Foley, J. C.: Frost in the Australian Region (Bull. 32, 1945).

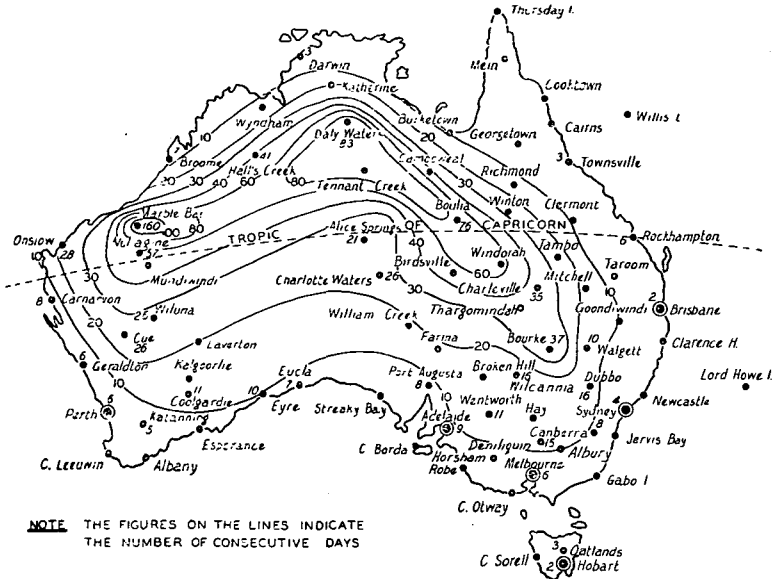




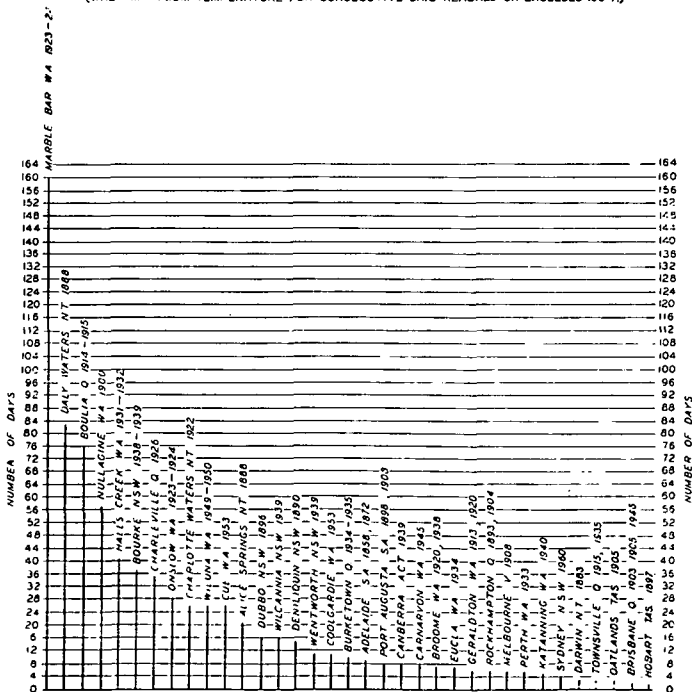


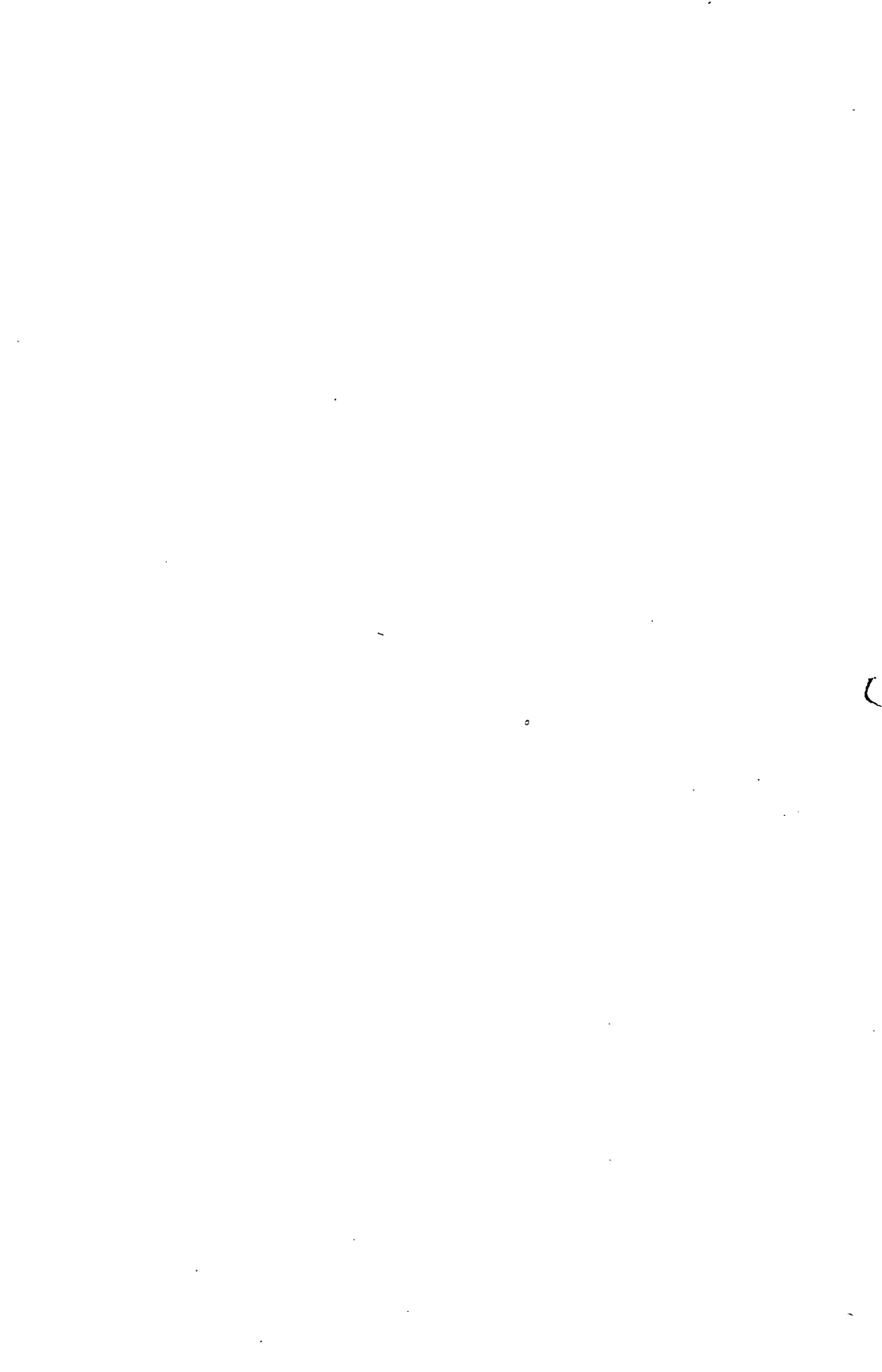


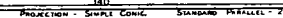
DURATION OF LONGEST HEATWAVES (WHEN MAXIMUM TEMPERATURE FOR CONSECUTIVE DAYS REACHED OR EXCEEDED 100°F)

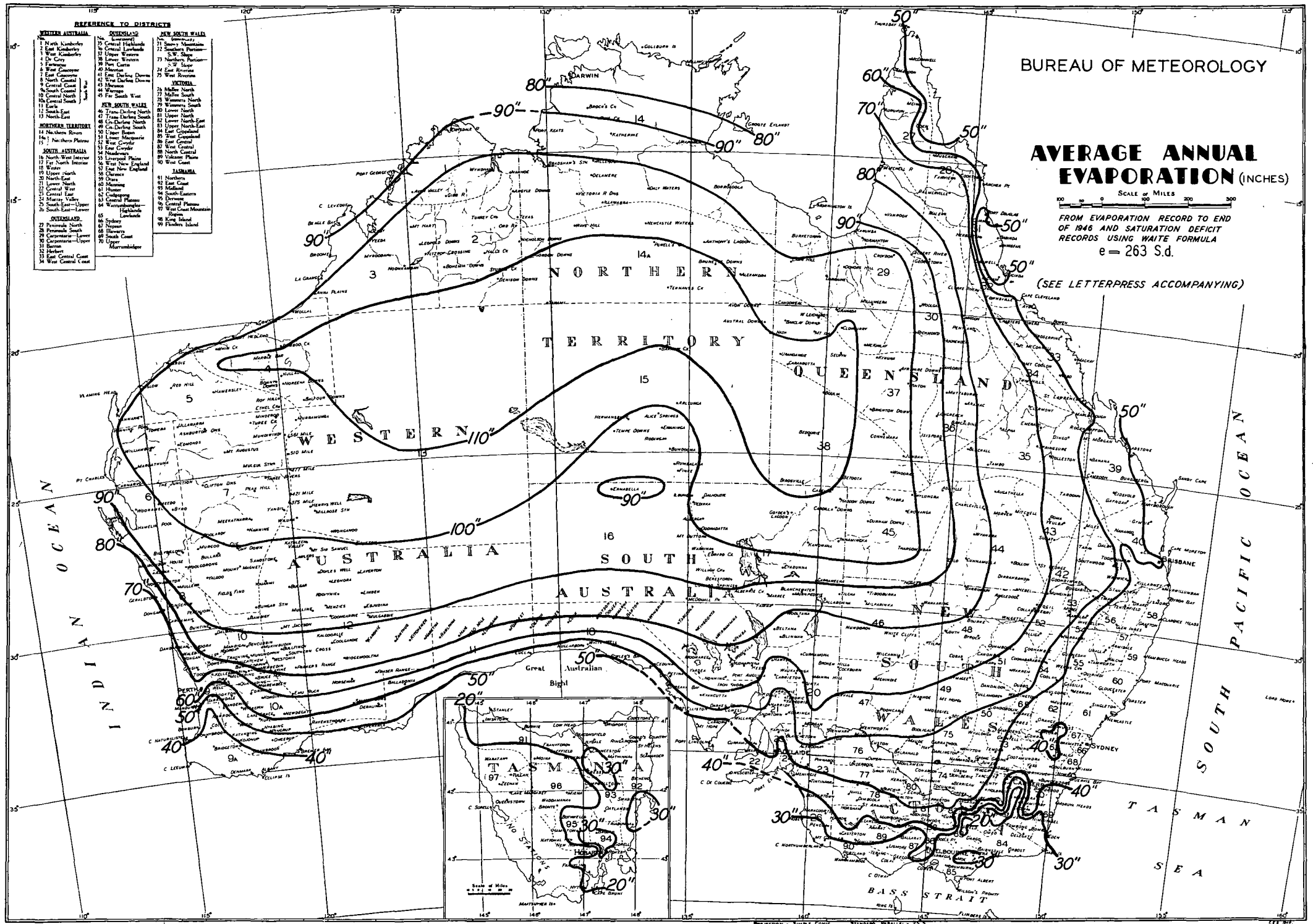


DURATION OF HEATWAVES AT PLACES INDICATED (WHEN MAXIMUM TEMPERATURE FOR CONSECUTIVE DAYS REACHED OR EXCEEDED 100°F)



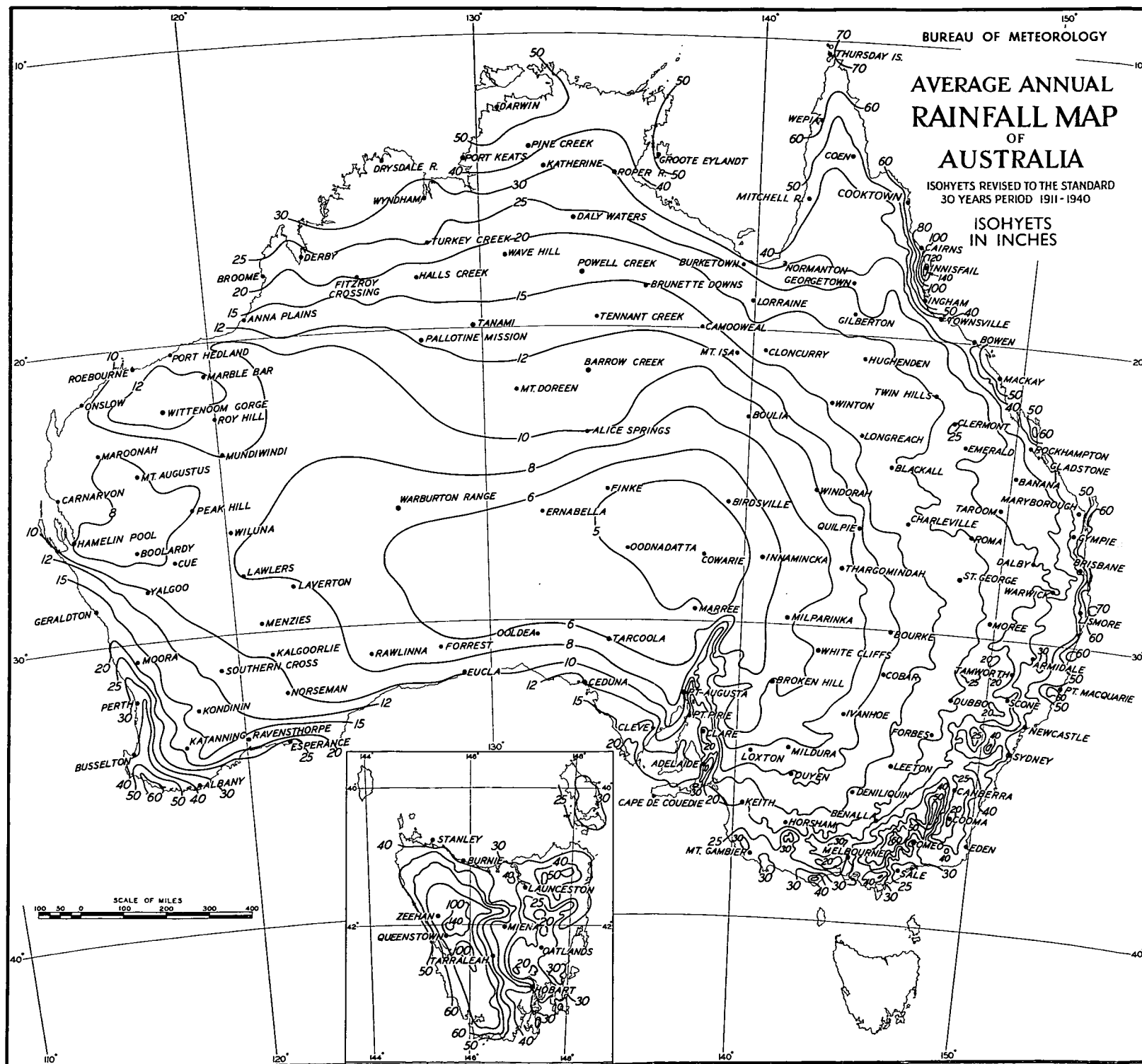






ISOHYETS REVISED TO THE STANDARD
30 YEARS PERIOD 1911-1940

ISOHYETS
IN INCHES



BUREAU OF METEOROLOGY.

MONTHLY DISTRIBUTION OF RAINFALL
OVER AUSTRALIA.

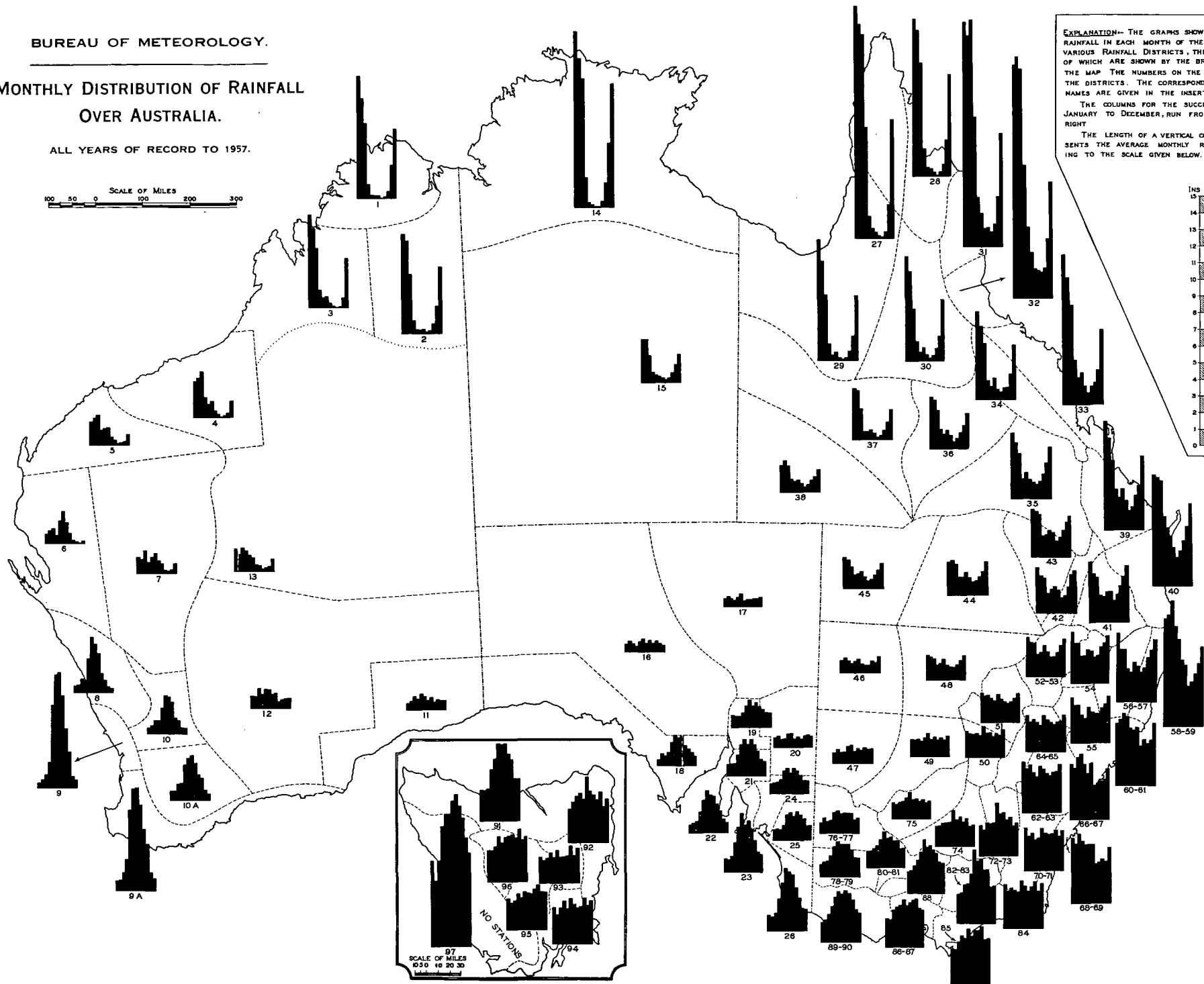
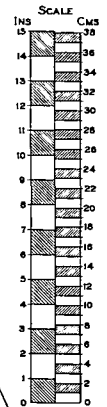
ALL YEARS OF RECORD TO 1957.

SCALE OF MILES
100 50 0 100 200 300

EXPLANATION—THE GRAPHS SHOW THE AVERAGE RAINFALL IN EACH MONTH OF THE YEAR IN THE VARIOUS RAINFALL DISTRICTS, THE BOUNDARIES OF WHICH ARE SHOWN BY THE BROKEN LINES ON THE MAP. THE NUMBERS ON THE MAP REFER TO THE DISTRICTS. THE CORRESPONDING DISTRICT NAMES ARE GIVEN IN THE INSERT ON PAGE 89.

THE COLUMNS FOR THE SUCCESSIVE MONTHS, JANUARY TO DECEMBER, RUN FROM LEFT TO RIGHT.

THE LENGTH OF A VERTICAL COLUMN REPRESENTS THE AVERAGE MONTHLY RAINFALL ACCORDING TO THE SCALE GIVEN BELOW.

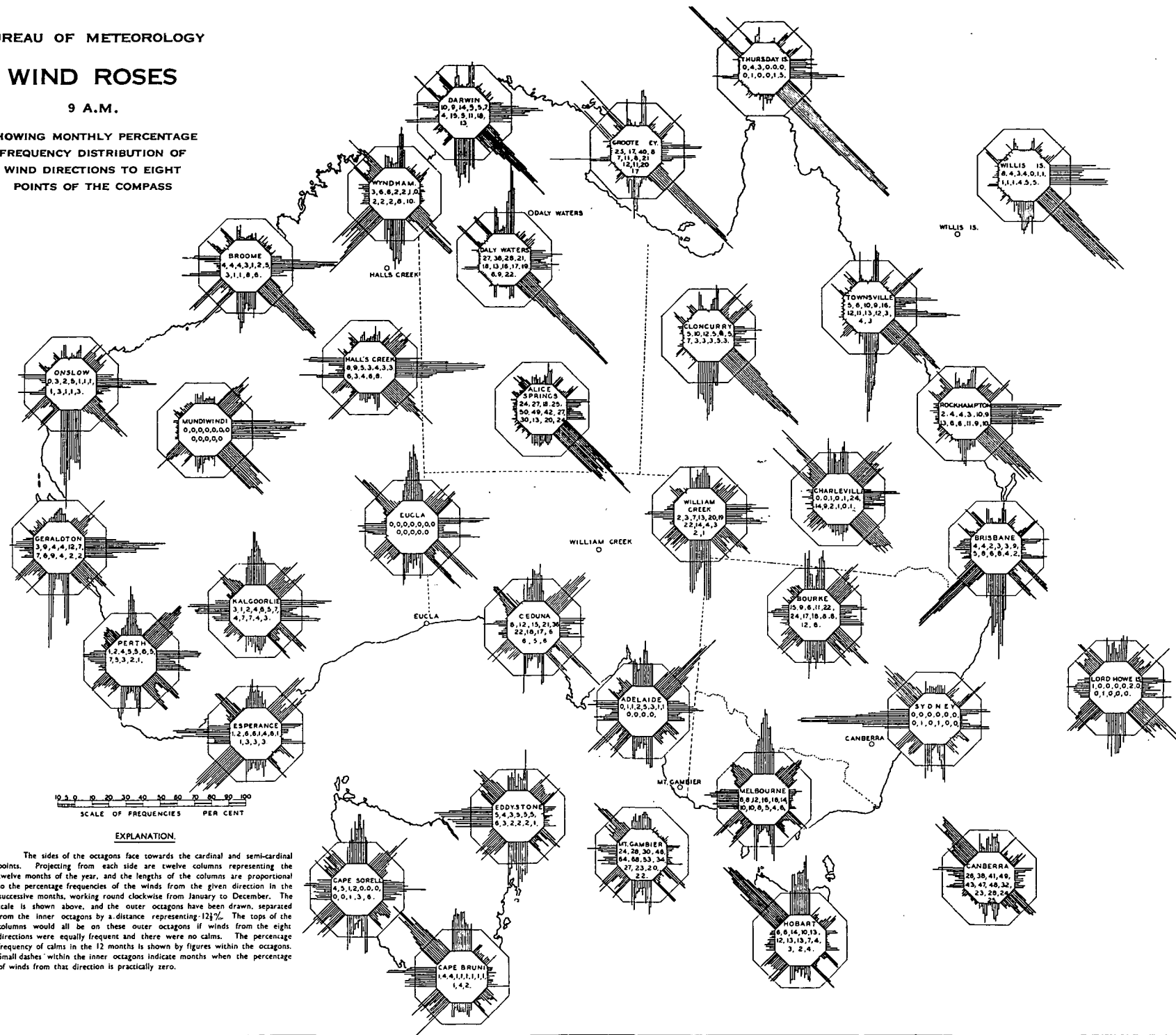


BUREAU OF METEOROLOGY

WIND ROSES

9 A.M.

SHOWING MONTHLY PERCENTAGE
FREQUENCY DISTRIBUTION OF
WIND DIRECTIONS TO EIGHT
POINTS OF THE COMPASS

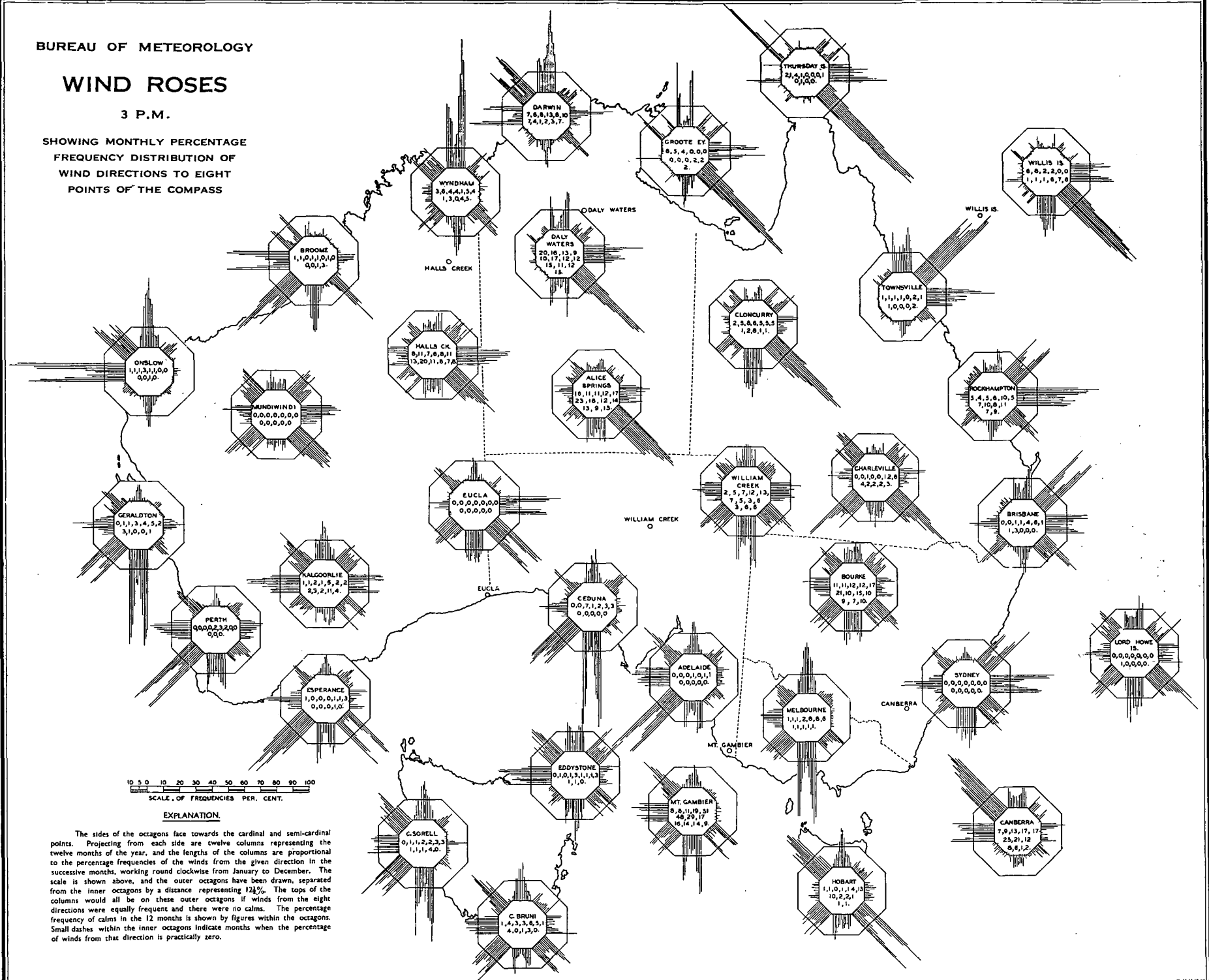


BUREAU OF METEOROLOGY

WIND ROSES

3 P.M.

SHOWING MONTHLY PERCENTAGE
FREQUENCY DISTRIBUTION OF
WIND DIRECTIONS TO EIGHT
POINTS OF THE COMPASS



Further reference to humidity will be found in the section on effective temperature (see p. 29).

4. *Evaporation.*—(i) *General.* The rate and quantity of evaporation in any territory is influenced by the prevailing temperature, and by atmospheric humidity, pressure and wind movement. In Australia, the question is of great importance, since in its drier regions water has often to be conserved in tanks and dams. The magnitude of the economic loss by evaporation will be appreciated from the map reproduced herein (see p. 40), which shows that the yearly amount varies from about 20 inches over western Tasmania to more than 100 inches over the central and north-western parts of Australia. Over an area of 70 per cent. of the continent, comprising most inland districts and extending to the coast in the North-West and the Eucla divisions of Western Australia, the rainfall does not exceed the evaporation during any month of the year. The central and north-western portions of the continent, comprising 46 per cent. of the total land mass, experience evaporation more than twice as great as their rainfall; it is noteworthy that the vegetation over most of this region is characterized by acacia, semi-desert, shrub steppe and porcupine grass. Since the loss by evaporation depends largely on the exposed area, tanks and dams so designed that the surface shall be a minimum are advantageous. Further, the more they are protected from the direct rays of the sun and from winds by means of suitable tree planting the less will be the loss by evaporation. The Mansfield Process for treatment of tanks, dams and ponds by hexadecanol film, materially reducing effective evaporation, is a recent development which is already having beneficial results. These matters are naturally of more than ordinary concern in the drier districts of Australia.

(ii) *Comments on Map of Average Annual Evaporation.* The map of average annual evaporation in Australia (see p. 40) has been compiled on the basis of records obtained from a number of evaporimeters supplemented by estimates derived from records of saturation deficit by applying the Waite Institute factor of 263.* Some modification of the latter values was found to be necessary in comparison with recordings of evaporimeters.

The standard evaporation tank used in Australia is cylindrical in form and is 36 inches in diameter and 36 inches deep. It is surrounded by a 6-inch water jacket and the whole is sunk into the ground so that the water surface is approximately at ground level.

Saturation deficit is obtained from readings of dry and wet bulb thermometers exposed in a standard Stevenson thermometer shelter. Saturation deficit is the difference between the vapour pressure indicated by the dry and wet bulb readings, and the saturation vapour pressure corresponding to the dry bulb temperature.

The Waite formula, $e=263$ s.d., is not an exact relationship, but it takes account of one of the major factors in evaporation, namely, the difference between saturation vapour pressures at the mean dew point and at the mean air temperature. Errors in the formula are found to be fairly consistent in considerable areas of Australia and corrections have been applied accordingly. No evaporation records are available north of latitude 20°, and corrections have been extrapolated for these areas. The evaporation stations on which estimates for the tropics have been based are Alice Springs (Northern Territory) and Winton (Queensland), and to a lesser degree Blackall (Queensland) and Marble Bar (Western Australia).

The map thus presents an estimate of evaporation for which allowance should be made for a certain margin of error (perhaps 10 per cent. or so) on the conservative side. In the absence of definite information, such a map should serve a useful purpose as a basis for many climatic studies.

For graphs and tables of mean monthly evaporation and rainfall at certain selected stations, see Official Year Book No. 37, pages 34–35.

5. *Rainfall.*—(i) *General.* The rainfall of any region is determined mainly by the direction and route of the prevailing winds, by the varying temperatures of the earth's surface over which they blow, and by its physiographical features.

Australia lies within the zones of the south-east trades and "prevailing" westerly winds. The southern limit of the south-east trades strikes the eastern shores at about 30° south latitude and the heaviest rains of the Australian continent, with very few exceptions, are precipitated along the Pacific slopes to the north of that latitude, the varying quantities being more or less regulated by the differences in elevation of the shores and of the chain of mountains from the New South Wales northern border to Thursday Island,

* Prescott, J. A. "Atmospheric Saturation Deficit in Australia" (Trans. Royal Society, S.A., Vol. LV., 1931).

upon which the rain-laden winds blow. The converse effect is exemplified on the north-west coast of Western Australia, where the prevailing winds, blowing from the interior of the continent instead of from the ocean, result in the lightest coastal rain in Australia.

The westerly winds, which skirt the southern shores, are responsible for the reliable, generally light to moderate rains enjoyed by the south-western portion of Western Australia, the agricultural areas of South Australia, a great part of Victoria, and the whole of Tasmania.

(ii) *Distribution of Rainfall.* The average annual rainfall map of Australia (see p. 41) shows that the heaviest yearly falls occur on the north coast of Queensland (up to more than 160 inches) and in western Tasmania (up to 140 inches), while from 50 to over 60 inches are received on parts of the eastern seaboard from Jervis Bay to the northern part of Cape York Peninsula, also around Darwin, on the West Kimberley coast, near Cape Leeuwin, about the Australian Alps in eastern Victoria and New South Wales, and on the north-eastern highlands in Tasmania. A great part of the interior of the continent, stretching from the far west of New South Wales and the south-west of Queensland to the vicinity of Shark Bay in Western Australia, has a very low average rainfall of less than 10 inches a year. Between these two regions of heavy and very low rainfall are the extensive areas which experience useful to good rains, and in the southern and eastern parts of which are found the best country and most of the population and primary production.

(iii) *Factors Determining Occurrence, Intensity and Seasonal Distribution of Rainfall.* Reference has already been made to the frequent rains occurring in the north-eastern coastal districts of Queensland with the prevailing south-east trade winds and to similar rains in the west of Tasmania with the prevailing westerly winds. Other rains in Australia are associated mainly with tropical and southern depressions.

The former chiefly affect the northern, eastern, and to some extent the central parts of the continent and operate in an irregular manner during the warmer half of the year, but principally from December to March. They vary considerably in activity and scope from year to year, occasionally developing into severe storms off the east and north-west coasts. Tropical rainstorms sometimes cover an extensive area, half of the continent on occasions receiving moderate to very heavy falls during a period of a few days. Rain is also experienced, with some regularity, with thunderstorms in tropical areas, especially near the coast. All these tropical rains, however, favour mostly the northern and eastern parts of the area referred to; the other parts further inland receive lighter, less frequent and less reliable rainfall. With the exception of districts near the east coast, where some rain falls in all seasons, the tropical parts of the continent receive useful rains only on rare occasions from May to September.

The Southern depressions are most active in the winter—June to August—and early spring months. The rains associated with them are fairly reliable and frequent over southern Australia and Tasmania, and provide during that period the principal factor in the successful growing of wheat. These depressions also operate with varying activity during the remainder of the year, but the accompanying rains are usually lighter. The southern rains favour chiefly the south-west of Western Australia, the agricultural districts of South Australia, Victoria, Tasmania and the southern parts of New South Wales. They sometimes extend into the drier regions of the interior.

The map showing mean monthly distribution of rainfall over Australia (see p. 42) gives, in graphic form, information on the amount and occurrence of rain.

(iv) *Wettest and Driest Regions.* The wettest known part of Australia is on the north-east coast of Queensland, between Port Douglas and Cardwell, where Tully on the Tully River has an average annual rainfall of 179.26 inches and Deeral on the northern coast-line 172.26 inches. In addition, three stations situated on, or adjacent to, the Johnstone and Russell Rivers have an average annual rainfall of between 144 and 169 inches. The maximum and minimum annual amounts there, in inches, are: Tully, 310.92 in 1950 and 104.98 in 1943, a range of 205.94 inches; Deeral, 287.18 in 1945 and 94.65 in 1951, a range of 192.53 inches; Harvey Creek, 254.77 in 1921 and 80.47 in 1902, a range of 174.30 inches; Goondi, 241.53 in 1894 and 67.88 in 1915, a range of 173.65 inches; Innisfail, 232.06 in 1950 and 69.87 in 1902, a range of 162.19 inches.

On five occasions, more than 200 inches have been recorded in a year at Goondi, the last of these being in 1950, when 204.97 inches were registered.

In 31 years of record, Tully has exceeded 200 inches on eleven occasions, and in 28 complete years of record Harvey Creek has exceeded this figure four times.

In Tasmania, the wettest part is in the West Coast region, the average annual rainfall at Lake Margaret being 146.51 inches, with a maximum of 177.30 inches in 1948.

The driest known part of the continent is in an area of approximately 180,000 square miles surrounding Lake Eyre in South Australia, where the annual average is between 4 and 6 inches and where the fall rarely exceeds 10 inches in twelve months. Records at stations have at times been interrupted, but of the 23 stations in this region which have an annual average of less than 5 inches, six have complete records extending from 30 to 55 years. Of these, Mulka has the lowest average of 4.05 inches (34 years), followed by Troudaninna with an average of 4.15 inches over 42 years.

Troudaninna in the period 1893 to 1936 had only one year in which the total exceeded 9 inches (11.07 inches in 1894). There have been protracted periods when the average has been even less than 3 inches. From 1895 to 1903, Troudaninna received the following annual totals:—2.78, 0.99, 5.71, 3.04, 3.18, 2.83, 1.80, 1.11, 4.87, an average of 2.92 inches. From 1918 to 1929 the average was only 2.65 inches, and in this period from December, 1924, to November, 1929, the average was only 1.70 inches.

Mulka since 1918 has only twice exceeded 10 inches for the annual total (11.72 inches in 1920 and 13.56 in 1955) and on 16 occasions in 34 years the annual total has been less than 3 inches. In one particular period from October, 1926 to September, 1930, the average was only 1.26 inches (505 points in 48 months). However, at Kanowana, an even lower four-year average of 1.12 inches was recorded between 1896 and 1899 with yearly totals of 43, 225, 87 and 94 points while the smallest yearly total was recorded at Mungeranie in 1889 when only 39 points were recorded on five days.

The average number of days of rain a month in this region is only 1 to 2 and the annual number ranges between 10 and 20. Oodnadatta (standard 30 years' average rainfall equal to 4.44 inches) has an average of 20 days of rain a year, while Cordillo Downs in the extreme north-east corner of the State of South Australia receives 5.16 inches on twelve days a year, averaging about one day of rain each month in the 30 year period 1911–1940.

No part of the earth, so far as is known, is absolutely rainless, and although at Arica, in northern Chile, the rainfall over a period of 15 years was nil, a further two years in which there were three measurable showers made the "average" for 17 years 0.02 inches.

(v) *Quantities and Distribution of Rainfall.* The general distribution is best seen from the rainfall map on page 41, which shows the areas subject to average annual rainfalls lying between certain limits. The proportions of the total area of each State and of Australia as a whole enjoying varying quantities of rainfall determined from the latest available information are shown in the following table:—

AVERAGE ANNUAL RAINFALL: AREA DISTRIBUTION.
(Per Cent.)

Average Annual Rainfall.	W. Aust.	N. Terr.	S. Aust.	Q'land.	N.S.W. (a)	Vic.	Tas. (b)	Total.
Under 10 inches ..	58.0	24.7	82.8	13.0	19.7	Nil	Nil	37.6
10 and under 15 ins.	22.4	32.4	9.4	14.4	23.5	22.4	Nil	19.9
15 and under 20 ..	6.8	9.7	4.5	19.7	17.5	15.2	0.7	10.9
20 and under 25 ..	3.7	6.6	2.2	18.8	14.2	17.9	11.0	9.1
25 and under 30 ..	3.7	9.3	0.8	11.6	9.1	18.0	11.4	7.3
30 and under 40 ..	3.3	4.7	0.3	11.1	9.9	16.1	20.4	6.6
40 inches and over ..	2.1	12.6	Nil	11.4	6.1	10.4	56.5	8.6
Total ..	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

(a) Includes Australian Capital Territory. are available.

(b) Over an area of 2,777 square miles no records

Referring first to the capital cities, the records of which are given in the next table, it will be seen that Sydney, with a normal rainfall of 44.80 inches, is the wettest, Brisbane, Perth, Melbourne, Hobart and Canberra follow in that order, Adelaide with 21.09 inches being the driest. The extreme range from the wettest to the driest year is greatest at Brisbane (72.09 inches) and least at Adelaide (19.63 inches).

In order to show how the rainfall is distributed throughout the year in various parts of the continent, average figures for the various climatological districts have been selected (see map on p. 42). The figures for Northern Rivers (District 14), show that nearly

the whole of the rainfall occurs there in the summer months, while little or none falls in the middle of the year. The figures for the Central Coast, south-west of Western Australia (District 9), are the reverse, for while the summer months are dry, the winter months are very wet. In the districts containing Melbourne and Hobart, the rain is fairly well distributed throughout the twelve months, with a maximum in October for both districts. In Queensland, the heaviest rains fall in the summer months, but good averages are also maintained during the other seasons in eastern parts.

On the coast of New South Wales, the first half of the year is the wettest, with heaviest falls in the autumn; the averages during the last six months are fair, and moderately uniform. Generally, it may be said that approximately one-third of the area of the continent, principally in the eastern and northern parts, enjoys an annual average rainfall of from 20 to 50 inches or more, the remaining two-thirds averaging from 5 to 20 inches.

(vi) *Tables of Rainfall.* The following table of rainfall for a fairly long period of years for each of the Australian capitals affords information as to the variability of the fall in successive years, and the list which follows in the next paragraph of the more remarkable falls furnishes information as to what may be expected on particular occasions:—

RAINFALL: AUSTRALIAN CAPITAL CITIES.

Year.	PERTH.		ADELAIDE.		BRISBANE.		SYDNEY.		CANBERRA.(a)		MELBOURNE.		HOBART.(b)	
	Amount.	No. of Days.	Amount.	No. of Days.	Amount.	No. of Days.	Amount.	No. of Days.	Amount.	No. of Days.	Amount.	No. of Days.	Amount.	No. of Days.
	in.		in.		in.		in.		in.		in.		in.	
1929 ..	36.77	132	17.51	119	39.78	118	57.90	129	23.12	70	28.81	168	26.55	194
1930 ..	39.80	129	18.65	116	41.22	144	44.47	141	17.33	82	25.41	145	19.38	152
1931 ..	39.18	118	22.26	145	66.72	136	49.22	153	24.02	103	28.63	164	27.17	179
1932 ..	39.40	121	25.04	141	24.79	97	37.47	146	20.18	118	31.08	179	30.29	155
1933 ..	32.47	116	22.12	130	49.71	118	42.71	153	20.78	96	22.28	136	23.18	182
1934 ..	40.61	120	20.24	125	54.26	117	64.91	183	35.58	131	33.53	157	23.17	194
1935 ..	32.28	129	23.45	140	34.64	111	30.97	131	23.78	95	29.98	183	32.22	196
1936 ..	30.64	118	19.34	121	21.77	101	30.22	130	26.24	108	24.30	187	19.60	178
1937 ..	35.28	120	23.01	128	34.79	113	52.00	157	20.46	82	21.45	144	20.65	160
1938 ..	29.64	111	19.26	119	43.49	110	39.17	132	19.26	79	17.63	131	31.32	169
1939 ..	45.70	123	23.29	139	41.43	122	33.67	127	27.63	116	33.11	166	27.23	188
1940 ..	20.00	98	16.16	116	42.37	93	39.34	125	17.38	64	19.83	126	17.17	135
1941 ..	34.74	122	22.56	126	31.50	105	26.74	129	19.55	91	31.78	157	23.49	145
1942 ..	39.24	140	25.44	133	44.01	125	48.29	121	25.76	104	29.79	148	19.42	163
1943 ..	31.46	117	17.84	135	50.68	126	50.74	136	24.59	123	18.80	150	20.84	149
1944 ..	27.39	123	17.13	114	27.85	100	31.04	115	12.05	75	21.32	143	26.23	151
1945 ..	52.67	137	17.85	105	48.16	130	46.47	136	22.35	100	19.22	152	16.92	157
1946 ..	41.47	122	22.59	135	38.66	83	36.05	111	22.31	94	29.80	177	39.45	193
1947 ..	43.42	137	21.89	146	60.30	146	41.45	137	27.95	135	30.47	163	38.61	181
1948 ..	34.75	126	21.40	122	41.54	106	38.83	131	32.11	101	20.98	155	23.42	178
1949 ..	27.15	126	18.23	119	47.18	121	66.26	149	27.71	100	31.41	163	22.85	157
1950 ..	32.27	122	16.06	91	63.93	152	86.33	183	43.35	132	26.18	147	19.25	131
1951 ..	34.14	127	25.44	135	33.89	87	53.15	143	22.00	103	29.85	155	24.57	163
1952 ..	39.28	123	19.99	128	33.49	122	59.19	130	37.87	141	34.39	177	30.35	165
1953 ..	37.14	119	20.00	121	43.60	101	40.86	110	19.40	102	28.38	148	28.06	162
1954 ..	28.05	112	16.73	109	61.36	142	41.29	134	18.81	82	33.53	139	27.20	143
1955 ..	46.52	138	24.58	134	50.41	136	72.46	160	30.85	124	30.70	160	22.32	168
1956 ..	37.35	107	27.24	154	59.18	120	67.33	155	40.46	150	30.96	188	36.63	175
1957 ..	33.40	117	16.71	110	20.58	80	27.13	110	14.41	81	20.68	146	28.66	129
1958 ..	32.08	107	17.57	121	46.61	115	59.19	144	30.23	117	26.98	155	36.55	166
1959 ..	24.23	114	11.32	88	45.84	146	59.67	164	34.41	112	25.84	131	19.28	136
Average	34.89	121	20.94	121	44.84	125	47.44	150	25.02	103	25.91	143	24.99	166
No. of	84	84	121	121	108	100	101	101	32	32	104	104	77	77
Stand-														
ard 30														
years'														
Normal(c)	35.99	128	21.09	122	40.09	117	44.80	143	..	..	25.89	156	25.03	180

(a) Commonwealth Forestry Bureau; records in issues of the Official Year Book prior to No. 36 were for the station at Acton which closed down in 1939. (b) Records taken from present site commenced 1883, (c) 1911–1940.

6. **Remarkable Falls of Rain.**—The following are the most notable falls of rain which have occurred within a period of twenty-four hours ending at 9 a.m. in the various States and Territories. For other very heavy falls at various localities, reference may be made to Official Year Book No. 14, pages 60–64, No. 22, pages 46–48 and No. 29, pages 43, 44 and 51.

HEAVY RAINFALLS: WESTERN AUSTRALIA, UP TO 1959, INCLUSIVE.

Name of Town or Locality.	Date.	Amt. in.	Name of Town or Locality.	Date.	Amt. in.
Whim Creek ...	3 Apr., 1898	29.41	Winderrie ...	17 Jan., 1923	14.23
Fortesque ...	3 May, 1890	23.36	Pilbara ..	2 Apr., 1898	14.04
Roebuck Plains ..	6 Jan., 1917	22.36	Roebuck Plains ..	5 Jan., 1917	14.01
Widjip ..	1 Apr., 1934	19.54	Broome ..	6 Jan., 1917	14.00
Kimberley (Re- search) ..	6 Apr., 1959	16.98	Carlton Hill ..	7 Feb., 1942	12.75
Derby ...	7 Jan., 1917	16.47	Towrana ..	1 Mar., 1943	12.16
Boodarie ..	21 Mar., 1899	14.53	Marble Bar ..	2 Mar., 1941	12.00
Balla Balla ...	21 Mar., 1899	14.40	Jimba Jimba ..	1 Mar., 1943	11.54
			Wyndham ...	1 Jan., 1959	10.94

HEAVY RAINFALLS: NORTHERN TERRITORY, UP TO 1959, INCLUSIVE.

Name of Town or Locality.	Date.	Amt. in.	Name of Town or Locality.	Date.	Amt. in.
Brocks Creek ..	24 Dec., 1915	14.33	Cape Don ..	13 Jan., 1935	13.58
Groote Eylandt ..	9 Apr., 1931	14.29	Bathurst Island		
Borrooloola ..	14 Mar., 1899	14.00	Mission ..	7 Apr., 1925	11.85
Timber Creek ..	5 Feb., 1942	13.65	Darwin ..	7 Jan., 1897	11.67

HEAVY RAINFALLS: SOUTH AUSTRALIA, UP TO 1959, INCLUSIVE.

Name of Town or Locality.	Date.	Amt. in.	Name of Town or Locality.	Date.	Amt. in.
Ardrossan ..	18 Feb., 1946	8.10	Wilmington ..	1 Mar., 1921	7.12
Carpa ..	18 Feb., 1946	7.83	Port Victoria ..	18 Feb., 1946	7.08
Wynbring ..	28 Feb., 1921	7.70	Mannum ..	25 Jan., 1941	6.84
Edithburgh ..	18 Feb., 1946	7.46	Wirrabarra ..	7 Mar., 1910	6.80
Hesso ..	18 Feb., 1946	7.36	Cape Willoughby	18 Feb., 1946	6.80
Maitland ..	18 Feb., 1946	7.21	Torrens Vale ..	25 Jan., 1941	6.77

HEAVY RAINFALLS: QUEENSLAND, UP TO 1959, INCLUSIVE.

Name of Town or Locality.	Date.	Amt. in.	Name of Town or Locality.	Date.	Amt. in.
Crohamhurst ..	3 Feb., 1893	35.71	Springbrook ..	24 Jan., 1947	27.07
Finch-Hatton ..	18 Feb., 1958	34.58	Springbrook ..	21 Feb., 1954	27.04
Port Douglas ..	1 Apr., 1911	31.53	Mt. Jukes ..	18 Feb., 1958	26.40
Yarrabah ..	2 Apr., 1911	30.65	Buderim Mountain	12 Jan., 1898	26.20
Mt. Charlton ..	18 Feb., 1958	29.95	Flat Top Island ..	21 Jan., 1918	25.18
Mooloolah ..	3 Feb., 1893	29.11	Landsborough ..	3 Feb., 1893	25.15
Kuranda ..	2 Apr., 1911	28.80	Harvey Creek ..	31 Jan., 1913	24.72
Calen ..	18 Feb., 1958	27.84	Kuranda ..	1 Apr., 1911	24.30
Harvey Creek ..	3 Jan., 1911	27.75	Babinda (Cairns)	2 Mar., 1935	24.14
Sarina ..	26 Feb., 1913	27.75	Goondi ..	30 Jan., 1913	24.10
Plane Ck. (Mackay)	26 Feb., 1913	27.73	Banyan (Cardwell)	12 Feb., 1927	24.00
Deeral ..	2 Mar., 1935	27.60	Carruchan ..	24 Jan., 1934	24.00
Yarrabah Mission	24 Jan., 1916	27.20	Tully Mill ..	12 Feb., 1927	23.86

HEAVY RAINFALLS: NEW SOUTH WALES, UP TO 1959, INCLUSIVE.

Name of Town or Locality.	Date.	Amt.	Name of Town or Locality.	Date.	Amt.
		in.			in.
Dorrigo	24 June, 1950	25.04	Viaduct Creek ..	15 Mar., 1936	20.00
Cordeaux River ..	14 Feb., 1898	22.58	Buladelah	16 Apr., 1927	19.80
Morpeth	9 Mar., 1893	21.52	Orara Upper .. .	24 June, 1950	19.80
Broger's Creek ..	13 Jan., 1911	20.83	Madden's Creek ..	13 Jan., 1911	18.68
South Head (Sydney Harbour) ..	16 Oct., 1844	20.41	Condong	27 Mar., 1887	18.66
"	29 Apr., 1841	20.12	Candelo	27 Feb., 1919	18.58
Mount Pleasant ..	5 May, 1925	20.10	Mt. Kembla	13 Jan., 1911	18.25
Broger's Creek ..	14 Feb., 1898	20.05	Bega	27 Feb., 1919	17.88
Towamba	5 Mar., 1893	20.00	Kembla Heights	13 Jan., 1911	17.46
			Foxground	11 Sept., 1950	17.04

HEAVY RAINFALL: AUSTRALIAN CAPITAL TERRITORY, UP TO 1959, INCLUSIVE.

Name of Town or Locality.	Date.	Amt.	Name of Town or Locality.	Date.	Amt.
		in.			in.
Cotter Junction ..	27 May, 1925	7.13	Uriarra (Woodside)	27 May, 1925	6.57
Canberra (Acton)	27 May, 1925	6.84	Land's End	27 May, 1925	6.35

HEAVY RAINFALLS: VICTORIA, UP TO 1959, INCLUSIVE.

Name of Town or Locality.	Date.	Amt.	Name of Town or Locality.	Date.	Amt.
		in.			in.
Balook	18 Feb., 1951	10.81	Blackwood (Greenhill)	26 Jan., 1941	8.98
Hazel Park	1 Dec., 1934	10.50	Tambo Crossing	13 July, 1925	8.89
Kalorama	1 Dec., 1934	10.05	Corinella	28 June, 1948	8.75
Cann River	16 Mar., 1938	9.94	Erica	1 Dec., 1934	8.66
Tonghi Creek .. .	27 Feb., 1919	9.90	Mt. Buffalo .. .	6 June, 1917	8.53
Cann River	27 Feb., 1919	9.56	Korumburra .. .	1 Dec., 1934	8.51
Olinda	1 Dec., 1934	9.10			

HEAVY RAINFALLS: TASMANIA, UP TO 1959, INCLUSIVE.

Name of Town or Locality.	Date.	Amt.	Name of Town or Locality.	Date.	Amt.
		in.			in.
Mathinna	5 Apr., 1929	13.25	Riana	5 Apr., 1929	11.08
Cullenswood .. .	5 Apr., 1929	11.12	Triabunna	5 June, 1923	10.20

7. **Snowfall.**—Light snow has been known to fall occasionally as far north as latitude 31° S., and from the western to the eastern shores of the continent. During exceptional seasons, it has fallen simultaneously over two-thirds of New South Wales, and has extended at times along the whole of the Great Dividing Range, from its southern extremity in Victoria as far north as Toowoomba in Queensland. During the winter, for several months, snow covers the ground to a great extent on the Australian Alps, where the temperature falls below zero Fahrenheit during the night. In the ravines around Mt. Kosciusko and similar localities, the snow does not entirely disappear after a severe winter.

8. **Hail.**—Hail falls most frequently along the southern shores of the continent in the winter, and over eastern Australia during the summer months. The size of the hailstones generally increases with distance from the coast. A summer rarely passes without some station experiencing a fall of stones exceeding in size an ordinary hen egg and many riddled sheets of light-gauge galvanized iron bear evidence of the weight and penetrating power of the stones.

The hailstones occur most frequently when the barometric readings indicate a flat and unstable condition of pressure. Tornadoes or tornadic tendencies are almost invariably accompanied by hail, and on the east coast the clouds from which the stones fall are frequently of a remarkable sepia-coloured tint.

9. *Droughts*.—A special article dealing with droughts was included in Year Book No. 45, pages 51–56, but is not repeated in this issue. Fuller information is available in a Bureau of Meteorology publication *Droughts in Australia* by J. C. Foley (Bulletin 43, 1957).

10. *Barometric Pressures*.—The mean annual barometric pressure (corrected to sea level and standard gravity) in Australia varies from 29.80 inches on the north coast to 29.92 inches over the central and 30.03 inches in the southern parts of the continent. In January, the mean pressure ranges from 29.70 inches in the northern and central areas to 29.95 inches in the southern. The July mean pressure ranges from 29.90 inches at Darwin to 30.12 inches at Alice Springs. Barometer readings corrected to mean sea level and standard gravity have ranged as high, under anticyclonic conditions, as 30.935 inches (at Hobart on 13th July, 1846) and have fallen as low as 27.55 inches. This record low was registered at Mackay during a tropical hurricane on 21st January, 1918. An almost equally abnormal reading of 27.88 inches was recorded at Innisfail during a similar storm on 10th March, 1918. For graphs of Mean Barometric Pressure at Capital Cities, see Official Year Book No. 37, page 35.

11. *Wind*.—(i) *Trade Winds*. The two distinctive wind currents in Australia are, as previously stated, the south-east trade and the “prevailing” westerly winds. As the belt of the earth’s atmosphere in which they blow apparently follows the sun’s ecliptic path north and south of the equator, so the area of the continent affected by these winds varies at different seasons of the year. During the summer months, the anticyclonic belt travels in high latitudes, thereby bringing the south-east trade winds as far south as 30° south latitude. The “prevailing” westerly winds retreat a considerable distance to the south of Australia, and are less in evidence in the hot months. When the sun passes to the north of the equator, the south-east trade winds follow it, and only operate to the north of the tropics for the greater part of the winter. The westerly winds come into lower latitudes during the same period of the year. They sweep across the southern areas of the continent from Cape Leeuwin to Cape Howe, and during some seasons are remarkably persistent and strong, and occasionally penetrate to almost tropical latitudes.

(ii) *North-west Monsoon*. As the belt of south-east trade winds retreats southward during the summer, it is replaced in the north and north-west of Australia first by a sequence of light variable winds and then by the north-west monsoon. In Australia, the north-west monsoon has not the persistence or regularity of the Indian south-west monsoon but is sufficiently characteristic for the summer in the north of Australia to be called the “North-west Season”. In central and eastern Queensland, the north-west monsoon in the summer has comparatively little effect and the trade winds, though weakened, are still dominant winds. With the migration of the sun northward in the autumn, the north-west monsoon is replaced first by light variable winds and then by the trade winds.

Further particulars of Australian wind conditions and meteorology will be found in Official Year Book No. 38, pages 58–61. Reference should also be made to the wind rose diagrams on pages 43 and 44.

(iii) *Cyclones and Storms*. The “elements” in Australia are ordinarily peaceful, and while destructive cyclones have visited various parts, more especially coastal areas, such visitations are rare, and may be properly described as erratic.

During the winter months, the southern shores of the continent are subject to deep depressions of the southern low-pressure belt. They are felt most severely over the south-western parts of Western Australia, to the south-east of South Australia, in Bass Strait, along the coastline of Victoria, and on the west coast of Tasmania. Apparently the more violent wind pressures from these disturbances are experienced in their northern half, or in that part of them which has a north-westerly to a south-westerly circulation.

The north-east coast of Queensland is occasionally visited by hurricanes from the north-east tropics. During the first four months of the year, these hurricanes appear to have their origin in the neighbourhood of the South Pacific Islands, their path being a parabolic curve first to the south-west and finally towards the south-east.

Very severe cyclones, locally known as “willy willies,” are peculiar to the north-west coast of Western Australia from the months of November to April, inclusive. They usually originate over the ocean to the north or north-west of Australia, and travel in a south-westerly direction with continually increasing force, displaying their greatest energy near Cossack and Onslow, between latitudes 20° and 22° South. The winds in these storms, like those from the north-east tropics, are very violent and destructive. The greatest velocities are usually to be found in the south-eastern quadrant of the cyclones, with north-east to east winds. After leaving the north-west coast, these storms either travel southwards, following the coast-line, or cross the continent to the Great Australian Bight. When they take the latter course, their track is marked by torrential rains, as much as 29.41 inches, for example, being recorded in 24 hours at Whim Creek from one such occurrence. Falls of 10 inches and over have frequently been recorded in the northern interior of Western Australia from similar storms.

Some further notes on severe cyclones and on "southerly bursters", a characteristic feature of the eastern part of Australia, appeared in early issues of the *Official Year Book* (see No. 6, pp. 84-86), and a special article dealing with "Australian Hurricanes and Related Storms" appeared in *Official Year Book* No. 16, pages 80-84.

Depressions vary considerably in their isobaric forms, intensity and other characteristics. Some bring rain in variable quantities, some heat and others mainly wind. A common type in southern Australia is the "A" shaped trough with an abrupt "backing" of the wind or "line squall" as it passes. The cold front is most frequently found through the centre of the "trough" because it is along this line, and extending into the upper levels of the atmosphere, that the demarcation of different air masses is so well defined. The best rains in inland Australia occur when extensive masses of warm moist tropical air move into the interior and are forced to rise by convergence of flow or by impact with a cold air stream.

The speed of low pressure systems is very variable, but in general in southern latitudes the movement is of the order of 500 to 700 miles a day.

12. Influences affecting Australian Climate.—(i) *General.* Australian history does not cover a sufficient period, nor is the country sufficiently occupied, to ascertain whether or not the advance of settlement has materially affected the climate as a whole. Local changes have, however, taken place; a fact which suggests that settlement and the treatment of the land have a distinct effect on local conditions. For example, low-lying lands on the north coast of New South Wales, which originally were seldom subject to frosts; have, with the deforestation of the surrounding hills, experienced annual visitations, the probable explanation being that through the absence of trees the cold air of the highlands now flows unchecked and untempered down the sides of the hills to the valleys and lower lands.

(ii) *Influence of Forests on Climate.* Since forests doubtless exercise a great influence on local climate, it follows that to the extent that forestal undertakings will allow, the weather can be controlled by human agency. The direct action of forests is an equalizing one; thus, especially in equatorial regions, and during the warmest portion of the year, they considerably reduce the mean temperature of the air. They also reduce the diurnal extremes of shade temperatures by altering the extent of radiating surface by evaporation, and by checking the movement of air, and while decreasing evaporation from the ground, they increase the relative humidity. Vegetation greatly diminishes the rate of flow-off of rain and the washing away of surface soil, and when a region is protected by trees a steady water supply is ensured, and the rainfall is better conserved. In regions of snowfall, the supply of water to rivers is similarly regulated and, without this and the sheltering influence of ravines and gullies, watercourses supplied mainly by melting snow would be subject to alternate periods of flooding and dryness. This is borne out in the case of the inland rivers, the River Murray, for example, which has never been known to become dry, deriving its steadiness of flow mainly through the causes indicated.

(iii) *Direct Influence of Forests on Rainfall.* Whether forests have a direct influence on rainfall is a debatable question, some authorities alleging that precipitation is undoubtedly induced by forests, while others take the opposite view.

Sufficient evidence exists, however, to prove that, even if the rainfall is not increased, the beneficial climatic effect of forest lands more than warrants their protection and extension. Rapid rate of evaporation, induced by both hot and cold winds, injures crops and makes life uncomfortable on the plains, and, while it may be doubted that the forest aids in increasing precipitation, it must be admitted that it does check winds and the rapid evaporation due to them. Trees as wind-breaks have been successfully planted in central parts of the United States of America, and there is no reason why similar experiments should not be successful in many parts of the treeless interior of Australia. The belts should be planted at right angles to the direction of the prevailing parching winds, and if not more than half a mile apart will afford shelter to the enclosed areas.

13. Rainfall and Temperatures, Various Cities.—*Official Year Book* No. 34, page 28; shows rainfall and temperature and No. 38, page 42, temperature, for various important cities throughout the world and for the Australian capitals.

14. Climatological Tables.—The averages and extremes for a number of climatological elements, which have been determined from long series of observations at the Australian capitals up to and including the year 1959 are given on the following eight pages.

NOTE.—The following points apply throughout:—

- (i) Where records are available, mean or average values have been calculated on a standard period of 30 years from 1911 to 1940.
- (ii) Extreme values have been extracted from all available years of actual record, but the number of years quoted does not include intervening periods when observations were temporarily discontinued.

CLIMATOLOGICAL DATA: PERTH, WESTERN AUSTRALIA.
 (LAT. 31° 37' S., LONG. 115° 51' E. HEIGHT ABOVE M.S.L. 210 FT.)
 Barometer, Wind, Evaporation, Lightning, Clouds and Clear Days.

Month.	Bar. corrected to 32° F. M.N. Sea Level and Standard Gravity from 9 a.m. and 3 p.m. readings.	Wind. (Height of Anemometer 71 feet.)			Prevailing Direction.		Mean Amount of Evaporation (inches).	No. of Days of Lightning.	Mean Amount of Clouds, 9 a.m. to 3 p.m., 9 p.m. (a)	No. of Clear Days.
		Average Miles per Hour.	Highest Mean Speed in One Day (miles per hour).	Highest Gust Speed (miles per hour).	9 a.m.	3 p.m.				
No. of years of observations.	30(b)	30(b)	62	47	30(b)	30(b)	30(b)	30(b)	30(b)	30(b)
January ..	29.897	10.9	26.3 27/98	48	E	SSW	10.37	2	2.9	14
February ..	29.922	10.7	21.5 6/08	54	ENE	SSW	8.63	2	3.1	13
March ..	29.976	10.1	21.5 6/73	66	E	SSW	7.52	2	3.5	12
April ..	30.071	8.5	31.5 25/00	63	ENE	SSW	4.62	2	4.2	6
May ..	30.062	8.4	27.3 29/32	68	NE	WSW	2.80	3	5.4	6
June ..	30.068	8.4	30.2 17/27	80	N	NW	1.82	2	5.9	5
July ..	30.082	8.8	33.5 20/26	77	NNE	W	1.76	2	5.6	5
August ..	30.084	9.4	31.9 15/03	78	N	WNW	2.37	2	5.6	6
September ..	30.073	9.4	28.5 17/05	68	ENE	SSW	3.44	1	4.9	8
October ..	30.033	10.0	26.7 6/16	65	SE	SW	5.38	1	4.8	8
November ..	29.989	10.7	25.7 18/97	63	E	SW	7.65	2	3.9	9
December ..	29.923	11.0	25.6 6/22	64	E	SSW	9.69	2	3.2	13
Totals ..	—	—	—	—	—	—	66.05	23	—	108
Year { Averages	30.015	9.7	—	—	E	SSW	—	—	4.4	—
Extremes	—	—	33.5 20/7/26	80	—	—	—	—	—	—

(a) Scale 0-10.

(b) Standard 30 years' normal (1911-1940).

Temperature and Sunshine.

Month.	Mean Temperature (°Fahr.).			Extreme Shade Temperature (°Fahr.).		Extreme Range.	Extreme Temperature (°Fahr.).		Mean Daily Hours of Sunshine.
	Mean Max.	Mean Min.	Mean	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.	
No. of years over which observation extends.	30(a)	30(a)	30(a)	63	63	63	59	61	30(a)
January ..	84.6	63.3	73.9	110.7 29/56	48.6 20/25	62.1	177.3 22/14	39.5 20/25	10.4
February ..	85.1	63.5	74.3	112.2 8/33	47.7 1/02	64.5	173.7 4/34	39.8 1/13	9.8
March ..	81.3	61.5	71.4	106.4 14/22	45.8 8/03	60.6	167.0 19/18	36.7 8/03	8.8
April ..	76.3	57.4	66.8	99.7 9/10	39.3 20/14	60.4	157.0 8/16	31.0 20/14	7.5
May ..	69.0	52.8	60.9	90.4 2/07	34.3 11/14	56.1	146.0 4/25	25.3 11/14	5.7
June ..	64.4	49.8	57.1	81.7 2/14	34.9 22/55	46.8	135.5 9/14	25.9 27/46	4.8
July ..	62.8	48.0	55.4	76.4 21/21	34.2 7/16	42.2	133.2 13/15	25.1 30/20	5.4
August ..	63.8	48.4	56.1	82.0 21/40	35.4 31/08	46.6	145.1 29/21	26.7 24/35	6.0
September ..	66.8	50.4	58.6	90.9 30/18	36.7 6/56	54.2	153.6 29/16	27.2 (b)	7.2
October ..	69.7	52.6	61.1	95.3 30/22	40.0 16/31	55.3	161.2 19/54	29.8 16/31	8.1
November ..	76.7	57.3	67.0	104.6 24/13	42.0 1/04	62.6	167.0 30/25	35.0 3/47	9.6
December ..	81.2	60.9	71.0	107.9 20/04	47.5 29/57	60.4	168.8 11/27	38.0 29/57	10.4
Year { Averages	73.5	55.5	64.5	—	—	—	—	—	7.8
Extremes	—	—	—	112.2 8/2/33	34.2 7/7/16	78.0	177.3 22/1/14	25.1 30/7/20	—

(a) Standard 30 years' normal (1911-1940).

(b) 8/1952 and 6/1956.

(c) 6/1910 and 14/1912.

Humidity, Rainfall and Fog.

Month.	Vapour Pres- sure (inches)	Rel. Hum. (%) at 9 a.m.					Rainfall (inches).				Fog.
		Mean 9 a.m.	Mean.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days of Rain.	Greatest Monthly.	Least Monthly.	Greatest in one Day.	
No. of years over which observation extends.	30(a)	30(a)	60	60	30(a)	30(a)	84	84	84	30(a)	
January ..	0.438	51	61	41	0.33	3	2.17 1879	Nil	(b)	1.74 27/79	0
February ..	0.434	51	65	43	0.50	3	6.55 1955	Nil	(b)	3.43 17/55	0
March ..	0.432	57	66	46	0.90	5	5.71 1934	Nil	(b)	3.03 9/34	0
April ..	0.397	61	73	51	1.75	8	5.85 1926	Nil	1920	2.62 30/04	1
May ..	0.365	70	81	61	5.14	15	12.13 1879	0.77	1949	3.00 17/42	2
June ..	0.337	75	83	68	7.55	17	18.75 1945	2.16	1877	3.90 10/20	2
July ..	0.322	76	84	69	7.08	19	16.73 1958	2.42	1876	3.00 4/91	2
August ..	0.316	71	83	62	5.78	19	12.53 1945	0.46	1902	2.91 14/45	1
September ..	0.341	66	75	58	3.37	15	7.84 1923	0.34	1916	1.82 4/31	0
October ..	0.345	60	75	52	2.30	12	7.87 1890	0.15	1946	1.73 3/33	0
November ..	0.374	52	63	41	0.75	7	2.78 1916	Nil	1891	1.54 29/56	0
December ..	0.409	51	63	44	0.54	5	3.17 1951	Nil	(b)	1.84 3/51	0
Year { Totals ..	—	—	—	—	35.99	128	—	—	—	—	8
Averages ..	0.370	62	—	—	—	—	—	—	—	—	—
Extremes ..	—	—	84	41	—	—	18.75 6/1945	Nil(c)	3.90 10/6/20	—	—

(a) Standard 30 years' normal (1911-1940).

(b) Various years.

(c) November to April, various years.

Dates in italics relate to nineteenth century.

CLIMATOLOGICAL DATA; DARWIN, NORTHERN TERRITORY.
(LAT. 12° 28' S., LONG. 130° 51' E. HEIGHT ABOVE M.S.L. 97 FT.)
Barometer, Wind, Evaporation, Lightning, Clouds and Clear Days.

Month.	Bar. corrected to 32° F. M.n. Sea Level and Stan- dard Gravity from 9 a.m. and 3 p.m. readings.	Wind.				Mean Amount of Evaporation (inches).	No. of Days of Lightning.	Mean Amount of Clouds, 9 a.m., 3 p.m., 9 p.m.(b)	No. of Clear Days.		
		Average Miles per Hour.	Highest Mean Speed in One Day (miles per hour).	Highest Gust Speed (miles per hour).	Prevailing Direction.						
					9 a.m.					3 p.m.	
No. of years of observations.	30	14	—	9(a)	—	—	—	30	30	30	
January ..	29.706	6.1	—	66	NW & S	W & NW	—	16	7.1	1	
February ..	29.728	6.7	—	54	W & S	W & NW	—	16	7.0	1	
March ..	29.751	5.3	—	98	SE	W & NW	—	14	6.2	3	
April ..	29.809	6.1	—	42	SE	E	—	6	3.5	11	
May ..	29.859	6.5	—	37	SE	E	—	1	2.1	19	
June ..	29.892	6.5	—	37	SE	E & SE	—	0	1.6	22	
July ..	29.911	6.2	—	36	SE	E & SE	—	0	1.4	23	
August ..	29.914	5.9	—	35	SE	NW & N	—	0	1.3	23	
September ..	29.886	6.2	—	33	SE & S	NW & N	—	1	2.0	18	
October ..	29.850	6.2	—	39	S	NW & N	—	8	3.2	10	
November ..	29.797	5.5	—	57	W & S	NW & N	—	17	4.8	4	
December ..	29.738	6.2	—	61	NW & S	NW & N	—	17	6.0	2	
Year {	Totals	—	—	—	—	—	—	96	—	137	
	Averages	29.820	6.1	—	—	SE	NW	—	—	3.9	—
	Extremes	—	—	—	98	—	—	—	—	—	—

(a) No records 1943 to 1958 inclusive. (b) Scale 0-10.

Temperature and Sunshine.

Month.	Mean Tempera- ture (°Fahr.).			Extreme Shade Temperature (°Fahr.).		Extreme Range.	Extreme Temperature (°Fahr.).		Mean Daily Hours of Sunshine.
	Mean.	Max.	Mean.	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.	
No. of years over which observation extends.	30	30	30	79(a)	79(a)	—	25	—	—
January ..	89.9	77.3	83.6	100.0	68.8	16/59	168.0	26/42	—
February ..	89.8	77.1	83.4	100.9	63.0	25/49	163.6	23/38	—
March ..	90.2	77.1	83.6	102.0	66.6	31/45	165.6	23/38	—
April ..	91.9	75.9	83.9	104.0	60.8	11/43	163.0	1/38	—
May ..	90.9	72.6	81.4	102.3	59.2	8/49	160.0	5/20	—
June ..	87.5	69.5	78.5	98.6	55.3	18/49	155.2	2/16	—
July ..	86.6	67.8	77.2	98.0	50.7	29/42	156.0	28/17	—
August ..	88.5	69.7	79.1	98.0	57.0	16/57	156.2	28/16	—
September ..	91.0	73.9	82.5	102.0	63.0	(c)	157.0	(d)	—
October ..	92.6	77.2	84.9	104.9	68.5	26/45	160.5	30/38	—
November ..	93.2	78.2	85.7	103.3	66.8	4/50	170.4	14/37	—
December ..	92.0	78.1	85.0	102.0	68.5	24/41	169.0	26/23	—
Year { Averages	90.3	74.5	82.4	—	—	—	—	—	—
Extremes	—	—	—	104.9	50.7	29/7/42	170.4	—	—
				17/10/1892	—	—	14/11/37	—	—

(a) Years 1882-1941 at Post Office, 1942-59 at aerodrome; sites not strictly comparable. (b) 26/1883 and 27/1883. (c) 15/1883, 1/1906 and 7/1958. (d) 28/1916 and 3/1921.

Humidity, Rainfall and Fog.

Month.	Vapour Pressure (inches)	Rel. Hum. (%) at 9 a.m.			Rainfall (inches).						Fog.		
		Mean. 9 a.m.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days of Rain.	Greatest Monthly.	Least Monthly.	Greatest in one Day.				
No. of years over which observation extends	57	57	57	58	30	21	91	91	91	30			
January	0.925	78	89	69	16.18	20	27.86	1906	2.25	1930	11.67	7/97	0.0
February	0.920	79	88	71	12.37	18	25.74	1955	0.44	1931	5.25	15/49	0.0
March	0.912	78	84	69	11.18	17	21.88	1898	0.81	1911	7.18	6/19	0.0
April	0.800	69	80	60	3.08	6	23.74	1891	Nil	(a)	6.62	4/59	0.0
May	0.652	63	76	49	0.33	1	14.00	1953	Nil	(a)	2.19	6/22	0.0
June	0.545	61	75	52	0.09	1	1.53	1902	Nil	(a)	1.32	10/02	0.4
July	0.522	59	71	47	0.01	0	2.56	1900	Nil	(a)	1.71	2/00	1.1
August	0.613	63	73	53	0.02	0	3.00	1870	Nil	(a)	1.06	14/09	0.7
September	0.732	65	73	54	0.60	2	2.72	1950	Nil	(a)	2.00	26/50	0.2
October	0.832	65	72	60	1.93	5	13.34	1954	Nil	(a)	3.74	18/56	0.0
November	0.868	68	75	62	4.32	10	15.72	1938	0.40	1870	4.73	9/51	0.0
December	0.890	73	83	65	8.57	15	22.38	1910	0.98	1934	7.87	28/10	0.0
Year { Totals	—	—	—	—	58.68	95	—	—	—	—	—	—	2.4
Averages	0.764	68	—	—	—	—	—	—	—	—	—	—	—
Extremes	—	—	89	47	—	—	27.86	1/06	Nil	(b)	11.67	7/1/1897	—

(a) Various years. (b) April to October, various years.
Dates in italics relate to nineteenth century.

CLIMATOLOGICAL DATA; ADELAIDE, SOUTH AUSTRALIA.
(LAT. 34° 56' S., LONG. 138° 35' E. HEIGHT ABOVE M.S.L. 140 FT.)
Barometer, Wind, Evaporation, Lightning, Clouds and Clear Days.

Month.	Bar. corrected to 32° F. Mn. Sea Level and Standard Gravity from 9 a.m. and 3 p.m. readings.	Wind. (Height of Anemometer 75 feet.)					Mean Amount of Evaporation (inches).	No. of Days of Lightning.	Mean Amount of Clouds, 9 a.m., 3 p.m., 9 p.m.(g)	No. of Clear Days.	
		Average Miles per Hour.	Highest Mean Speed in One Day (miles per hour).	Highest Gust Speed (miles per hour).	Prevailing Direction.						
					9 a.m.	3 p.m.					
No. of years of observations.	30(b)	30(b)	82	42	30(b)	30(b)	30(b)	30(b)	30(b)	30(b)	
January ..	29.917	9.9	31.6 19/99	72	SW	SW	9.27	2.3	3.6	12.9	
February ..	29.953	8.8	28.8 22/96	66	NE	SW	7.56	2.0	3.7	11.2	
March ..	30.037	8.3	26.2 9/12	78	S	SW	6.39	1.8	4.0	10.6	
April ..	30.119	8.0	32.2 10/96	81	NE	SW	3.78	1.5	5.2	7.2	
May ..	30.131	8.1	31.7 9/80	70	NE	NW	2.27	1.3	5.8	4.9	
June ..	30.119	8.3	31.3 12/78	67	NE	N	1.37	1.3	6.1	4.1	
July ..	30.111	8.5	28.1 25/82	60	NE	NW	1.34	1.5	6.0	4.3	
August ..	30.084	9.2	32.2 31/97	62	NE	SW	1.99	2.0	5.5	5.6	
September ..	30.050	9.2	30.0 2/87	69	NNE	SW	3.05	2.0	5.3	5.8	
October ..	30.007	9.8	32.0 28/98	75	NNE	SW	5.03	2.8	5.3	5.7	
November ..	29.990	9.9	32.2 7/48	79	SW	SW	6.89	3.3	4.9	7.2	
December ..	29.922	9.9	28.1 12/91	75	SW	SW	8.74	2.2	4.2	9.5	
Year {	Totals	—	—	—	—	—	57.68	24.0	—	89.0	
	Averages	30.037	9.0	—	—	NE	SW	—	—	5.0	—
	Extremes	—	—	32.2 (c)	81	—	—	—	—	—	—

(a) Scale 0-10. (b) Standard 30 years' normal (1911-1940).

(c) 10/4/1896, 31/8/1897 and 7/11/1948.

Temperature and Sunshine.

Month.	Mean Temperature (°Fahr.).			Extreme Shade Temperature (°Fahr.).		Extreme Range.	Extreme Temperature (°Fahr.).		Mean Daily Hours of Sunshine.
	Mean Max.	Mean Min.	Mean	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.	
No. of years over which observation extends.	30(a)	30(a)	30(a)	103	103	103	54(b)	97	30(a)
January ..	84.8	61.0	72.9	117.7 12/39	45.1 21/84	72.6	180.0 18/82	36.5 14/79	10.0
February ..	85.7	61.8	73.7	113.6 12/99	45.5 23/18	68.1	170.5 10/00	35.8 23/26	9.3
March ..	81.3	59.1	70.2	110.5 9/34	43.9 21/33	66.6	174.0 17/83	32.1 21/33	7.9
April ..	73.0	54.4	63.7	98.6 5/38	39.6 15/59	59.0	155.0 1/83	30.2 16/17	6.0
May ..	66.8	50.8	58.8	89.5 4/21	36.9 (c)	52.6	148.2 12/79	25.6 19/28	4.8
June ..	61.0	46.6	53.8	78.1 4/57	32.5 (d)	45.6	138.8 18/79	21.0 24/44	4.2
July ..	59.9	45.4	52.7	74.0 11/06	32.0 24/08	42.0	134.5 26/90	22.1 30/29	4.3
August ..	62.3	46.2	54.3	85.0 31/11	32.3 17/59	52.7	140.0 31/92	22.8 11/29	5.4
September ..	66.8	48.3	57.5	91.3 29/44	32.7 4/58	58.6	160.5 23/82	25.0 25/27	6.3
October ..	72.5	51.7	62.1	102.9 21/22	36.1 20/58	66.8	162.0 30/21	27.8 (e)	7.3
November ..	78.1	55.4	66.7	113.5 21/65	40.8 2/09	72.7	166.9 20/78	31.5 2/09	8.6
December ..	82.6	58.9	70.7	114.6 29/31	43.0 (f)	71.6	175.7 7/99	32.5 4/84	9.5
Year { Averages	72.9	53.3	63.1	—	—	—	—	—	7.0
Year { Extremes	—	—	—	117.7 12/139	32.0 24/7/08	85.7	180.0 18/1/1882	21.0 24/6/44	—

(a) Standard 30 years' normal (1911-1940).

(b) Records incomplete, 1931-34. Discontinued, 1934.

(c) 22/1895 and 24/1904. (d) 27/1876 and 24/1944.

(e) 4/1931 and 2/1918. (f) 4/1906, 16/1861.

Humidity, Rainfall and Fog.

Month.	Vapour Pressure (inches)	Rel. Hum. (%) at 9 a.m.				Rainfall (inches).					Fog.
		Mean.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days of Rain.	Greatest Monthly.	Least Monthly.	Greatest in one Day.		
No. of years over which observation extends.	30(a)	30(a)	90	90	30(a)	30(a)	121	121	121	30(a)	
January	0.327	39	59	29	0.76	5	3.31 1941	Nil (b)	2.30 2/89	0.0	
February	0.352	41	57	30	1.10	5	6.09 1925	Nil (b)	5.57 7/25	0.0	
March	0.332	44	58	29	0.87	5	4.59 1878	Nil (b)	3.50 5/78	0.0	
April	0.329	55	72	37	1.45	10	5.81 1938	Nil 1945	3.15 5/60	0.0	
May	0.313	64	76	49	2.49	13	7.75 1875	0.10 1934	2.75 1/53	0.6	
June	0.294	75	84	63	2.93	15	8.58 1916	0.23 1958	2.11 1/20	1.1	
July	0.282	75	87	66	2.49	16	5.44 1890	0.39 1899	1.75 10/65	1.4	
August	0.282	68	78	54	2.58	16	6.20 1852	0.33 1944	2.23 19/51	0.4	
September	0.289	59	72	44	2.39	13	5.83 1923	0.27 1951	1.59 20/23	0.2	
October	0.287	48	67	29	1.54	10	5.24 1949	0.17 1914	2.24 16/08	0.0	
November	0.292	41	58	31	1.22	8	4.45 1839	0.08 1922	2.08 7/34	0.0	
December	0.322	40	56	31	1.27	6	3.98 1861	Nil 1904	2.42 23/13	0.0	
Year { Totals	—	—	—	—	21.09	122	—	—	—	3.7	
Year { Averages	0.304	52	—	—	—	—	8.58 6/1916	Nil (c)	5.57 7/2/25	—	
Year { Extremes	—	—	87	29	—	—	—	—	—	—	

(a) Standard 30 years' normal (1911-1940).

(b) Various years.

(c) December to April, various years.

Dates in italics relate to nineteenth century.

CLIMATOLOGICAL DATA; BRISBANE, QUEENSLAND.
(LAT. 27° 28' S., LONG. 153° 2' E. HEIGHT ABOVE M.S.L. 134 FT.)
Barometer, Wind, Evaporation, Lightning, Clouds and Clear Days.

Month.	Bar. corrected to 32° F. M. Sea Level and Standard Gravity from 9 a.m. and 3 p.m. readings.	Wind. (Height of Anemometer 105 feet.)				Prevailing Direction.		Mean Amount of Evaporation (inches).	No. of Days of Lightning.	Mean Amount of Clouds, 9 a.m., 3 p.m., 9 p.m. (a).	No. of Clear Days.
		Average Miles per Hour.	Highest Mean Speed in One Day (miles per hour).	Highest Gust Speed (miles per hour).							
					9 a.m.	3 p.m.					
No. of years of observations.	30(b)	30(b)	45	45	30(b)	30(b)	30(b)	30(b)	30(b)	30(b)	
January ..	29.865	6.8	19.7 23/47	58	SE	NE	6.74	9.8	5.7	3.5	
February ..	29.912	7.0	23.2 21/54	67	SE	NE	5.49	6.5	5.6	2.4	
March ..	29.975	6.5	20.3 1/29	65	S	E	5.05	5.9	5.1	5.4	
April ..	30.035	5.9	16.7 3/25	64	S	E	4.05	5.0	4.3	7.8	
May ..	30.083	5.8	17.9 17/26	49	SW	SE	3.09	4.1	4.3	8.3	
June ..	30.091	5.7	19.0 14/28	58	SW	W & SW	2.45	2.9	4.4	9.2	
July ..	30.090	5.6	22.0 13/54	67	SW	W & SW	2.69	2.8	3.8	12.4	
August ..	30.105	5.8	14.8 4/35	56	SW	NE	3.51	3.8	3.1	13.1	
September ..	30.067	5.9	16.1 1/48	63	SW	NE	4.51	5.8	3.3	13.0	
October ..	30.019	6.3	15.7 1/41	62	S	NE	5.81	7.1	4.2	8.5	
November ..	29.958	6.7	15.5 10/28	62	SE & N	NE	6.32	9.5	4.9	5.9	
December ..	29.890	7.0	19.5 15/26	79	SE	NE	7.02	10.6	5.3	3.8	
Totals ..	—	—	—	—	—	—	56.73	73.8	—	93.3	
Averages ..	30.007	6.3	—	—	SW	NE	—	—	4.5	—	
Extremes ..	—	—	23.2 21/2/54	79	—	—	—	—	—	—	

(a) Scale 0-10.

(b) Standard 30 years' normal (1911-1940).

Temperature and Sunshine.

Month.	Mean Temperature (°Fahr.).			Extreme Shade Temperature (°Fahr.).		Extreme Range.	Extreme Temperature (°Fahr.).		Mean Daily Hours of Sunshine.				
	Mean Max.	Mean Min.	Mean	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.					
	No. of years over which observation extends.	30(a)	30(a)	30(a)	73		73	73		50(b)	73	30(a).	
January	85.5	69.1	77.3	109.8	26/40	58.8	4/93	51.0	169.0	2/37	49.9	4/93	7.6
February	84.6	68.7	76.6	105.7	21/25	58.5	23/31.	47.2	165.2	6/10	49.1	22/31	7.4
March	82.3	66.2	74.3	99.4	5/19	52.4	29/13	47.0	162.5	6/39	45.4	29/13	7.0
April	79.1	61.5	70.3	95.2	(c)	44.4	25/25	50.8	153.8	11/16	36.7	24/25	7.1
May	73.7	55.6	64.7	90.3	21/23	40.6	30/51	49.7	147.0	1/10	29.8	8/97	6.6
June	69.4	51.5	60.5	88.9	19/18	36.3	29/08	52.6	136.0	3/18	25.4	23/88	6.3
July	68.6	49.4	59.0	84.3	23/46	36.1	(d)	48.2	146.1	20/15	23.9	11/90	6.8
August	71.1	50.0	60.6	91.0	14/46	37.4	6/87	53.6	141.9	20/17	27.1	9/99	7.9
September	75.5	54.8	65.1	100.9	22/43	40.7	1/96	60.2	155.5	26/03	30.4	1/89	8.2
October	79.2	60.3	69.8	105.3	30/58	43.3	3/99	62.0	157.4	31/18	34.9	8/89	8.4
November	82.3	64.6	73.4	106.1	18/13	48.5	2/05	57.6	162.3	7/89	38.8	1/05	8.2
December	84.5	67.5	76.0	105.9	26/93	56.3	5/55	49.6	165.9	28/42	49.1	3/94	8.2
Year { Averages	78.0	59.9	69.0	—		—		—	—		—		7.5
Year { Extremes	—	—	—	109.8	26/1/40	36.1	(d)	73.7	169.0	2/1/37	23.9	11/7/1890	—

(a) Standard 30 years' normal (1911-1940).

(b) From 1887 to March, 1947, excluding 1927 to 1936.

(c) 9/1896 and 5/1903.

(d) 12/7/1894 and 2/7/1896.

Humidity, Rainfall and Fog.

Month.	Vapour Pressure (inches)	Rel. Hum. (%) at 9 a.m.			Rainfall (inches).							Fog.
		Mean 9 a.m.	Mean.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days of Rain.	Greatest Monthly.	Least Monthly.	Greatest in one Day.		
No. of years over which observation extends.	30(a)	30(a)	73	73	30(a)	30(a)	108	108(b)	108	30(a)		
January ..	0.636	66	79	53	5.72	12	27.72 1895	0.32 1919	18.31 21/87	0.6		
February ..	0.644	69	82	55	5.47	12	40.39 1893	0.58 1849	10.61 6/31	0.9		
March ..	0.606	72	85	56	4.97	14	34.04 1870	Nil 1849	11.18 14/08	1.6		
April ..	0.512	71	80	56	3.68	11	15.28 1867	0.04 1944	5.46 5/33	4.0		
May ..	0.420	71	85	59	2.35	9	13.85 1876	Nil 1846	5.62 9/79	5.4		
June ..	0.357	73	84	54	2.75	8	14.03 1873	Nil 1847	6.41 15/48	4.5		
July ..	0.331	71	88	53	1.88	8	8.60 1950	Nil 1841	3.54 (c)	4.9		
August ..	0.338	67	80	53	1.07	7	14.67 1879	Nil (d)	4.89 12/87	5.9		
September ..	0.396	62	76	47	1.69	7	5.43 1886	0.10 1907	2.46 2/94	2.8		
October ..	0.459	59	72	48	2.27	8	11.41 1949	0.03 1948	5.34 25/49	1.6		
November ..	0.533	61	73	45	4.00	10	12.40 1917	Nil 1842	4.46 16/86	0.7		
December ..	0.589	62	70	51	4.24	11	17.36 1942	0.35 1865	6.60 28/71	0.4		
Year { Totals ..	—	—	—	—	40.09	117	—	—	—	33.3		
Year { Averages ..	0.485	67	—	—	—	—	—	—	—	—		
Year { Extremes ..	—	—	88	45	—	—	40.39 2/1893	Nil (e)	18.31 21/1/1887	—		

(a) Standard 30 years' normal (1911-1940).

(b) Records incomplete for various years between 1846 and 1859.

(c) 15/1876 and 16/1889.

(d) 1862, 1869, 1880.

(e) Various months in various years.

Dates in italics relate to nineteenth century.

CLIMATOLOGICAL DATA; SYDNEY, NEW SOUTH WALES.
(LAT. 33° 52' S., LONG. 151° 12' E. HEIGHT ABOVE M.S.L. 138 FT.)
Barometer, Wind, Evaporation, Lightning, Clouds and Clear Days.

Month.	No. of years of observations.	Bar. corrected to 32° F. Mm. Sea Level and Standard Gravity from 9 a.m. and 3 p.m. readings.	Wind. (Height of Anemometer 58 feet.)				Mean Amount of Evaporation (inches).	No. of Days of Lightning.	Mean Amount of Clouds, 9 a.m., 3 p.m., 9 p.m.(g)	No. of Clear Days.	
			Average Miles per Hour.	Highest Mean Speed in One Day (miles per hour).	Highest Gust Speed (miles per hour).	Prevailing Direction.					
						9 a.m..	3 p.m.				
		30(b)	26(c)	46(d)	40(e)	26(c)	26(c)	26(c)	30(f)	30(b)	30(b)
January	29.875	8.9	24.9	2/22	93	S.	ENE	5.71	4.8	5.7	4.8
February	29.942	8.1	23.5	19/57	63	NE	ENE	4.68	3.3	5.5	5.4
March	30.009	7.5	20.7	10/44	58	W	ENE	4.05	2.8	5.3	5.8
April	30.063	7.0	23.4	19/27	72	W	NE	2.91	2.4	5.0	7.0
May	30.098	6.8	19.6	2/26	63	W.	S	2.17	1.6	4.9	7.4
June	30.078	7.1	24.5	17/14	73	W	W	1.61	1.5	4.8	8.3
July	30.070	7.2	26.6	6/31	68	W	W.	1.69	1.1	4.5	10.1
August	30.060	7.4	24.6	9/51	68	W.	NE	2.30	2.1	3.9	11.1
September	30.018	8.0	22.3	19/17	70	W	NE	3.00	3.0	4.2	10.0
October	29.976	8.2	23.3	2/57	95	W	ENE	4.17	3.9	4.9	7.4
November	29.935	8.5	22.6	14/30	71	W & E	ENE	4.97	4.5	5.5	5.7
December	29.881	8.9	24.9	10/20	75	S.	ENE	5.64	5.4	5.8	4.8
Year { Totals		30.000	7.8	—	—	—	—	42.90	36.4	—	87.8
Year { Averages		—	—	—	—	W	NE	—	—	5.0	—
Year { Extremes		—	—	26.6 6/7/31	95	—	—	—	—	—	—

(a) Scale 0-10. (b) Standard 30 years' normal (1911-1940). (c) 1915-1940. (d) 1914-1959.
(e) 1917-1959. (f) 1921-1950.

Temperature and Sunshine.

Month.	Mean Temperature (°Fahr.).			Extreme Shade Temperature (°Fahr.).		Extreme Range.	Extreme Temperature (°Fahr.).		Mean Daily Hours of Sunshine.				
	Mean Max.	Mean Min.	Mean	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.					
No. of years over which observation extends.	30(a)	30(a)	30(a)	101	101	101	84	101	30(b)				
January	78.6	65.1	71.8	113.6	14/39	51.1	18/49	62.5	164.3	26/15	43.7	6/25	7.5
February	78.7	65.5	72.1	107.8	8/26	49.3	28/63	58.5	168.3	14/39	42.8	22/33	7.0
March	76.6	62.9	69.8	102.6	3/69	48.8	14/86	53.8	158.3	10/26	39.9	17/13	6.4
April	72.0	57.7	64.9	91.4	1/36	44.6	27/64	46.8	144.1	10/77	33.3	24/09	6.1
May	67.0	52.4	59.7	86.0	1/19	40.2	22/59	45.8	129.7	1/96	29.3	25/17	5.7
June	62.8	48.1	55.5	80.4	11/31	35.7	22/32	44.7	125.5	2/23	28.0	22/32	5.3
July	61.8	46.4	54.1	78.3	22/26	35.9	12/90	42.4	124.7	19/77	24.0	4/93	6.1
August	64.3	47.6	56.0	86.8	24/54	36.8	3/72	50.0	149.0	30/78	26.1	4/09	7.0
September	68.3	51.4	59.9	92.3	27/19	40.8	2/45	51.5	142.2	12/78	30.1	17/05	7.3
October	71.7	55.9	63.8	99.4	4/42	42.2	6/27	57.2	152.2	20/33	32.7	9/05	7.5
November	74.5	59.8	67.1	104.3	6/46	45.8	1/05	61.3	158.5	28/99	36.0	6/06	7.5
December	76.9	63.2	70.1	108.0	20/57	48.4	3/24	59.6	164.5	27/89	41.4	3/24	7.5
Year { Averages	71.1	56.3	63.7	—	—	—	—	—	—	—	—	—	6.8
Year { Extremes	—	—	—	113.6	14.1/39	35.7	22/6/32	77.9	168.3	14/2/39	24.0	4/7/1893	—

(a) Standard 30 years' normal (1911-1940). (b) 1921-1950 (different exposure prior to 1921).

Humidity, Rainfall and Fog.

Month.	Vapour Pressure (inches)	Rel. Hum. (%) at 9 a.m.				Rainfall (inches).							Fog.
		Mean 9 a.m.	Mean.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days of Rain.	Greatest Monthly.	Least Monthly.	Greatest in one Day.	Mean No. of Days of Fog.		
No. of years over which observation extends.	30(a)	30(a)	80	80	30(a)	30(a)	101	101	101	30(b)			
January	0.537	65	78	58	3.86	13	15.26	1911	0.25	1932	7.08	13/11	0.4
February .. .	0.560	68	81	60	3.15	12	22.22	1956	0.12	1939	8.90	25/73	0.8
March	0.527	71	85	62	4.44	13	20.52	1942	0.42	1876	11.05	28/42	1.8
April	0.441	73	87	63	5.65	14	24.49	1861	0.06	1868	7.52	29/60	2.8
May	0.362	75	90	63	4.98	12	23.03	1919	0.14	1957	8.36	28/89	3.7
June	0.303	76	89	63	3.68	11	25.30	1950	0.19	1904	5.17	16/84	3.3
July	0.282	74	88	63	4.89	12	13.23	1950	0.10	1946	7.80	7/31	2.9
August	0.288	68	84	54	2.41	10	14.89	1899	0.04	1885	5.33	2/60	2.3
September ..	0.325	62	79	49	2.77	11	14.05	1879	0.08	1882	5.69	10/79	1.0
October	0.378	60	77	46	2.80	11	11.13	(c)	0.21	1867	6.37	13/02	0.6
November ..	0.433	60	79	42	2.54	11	9.88	1865	0.07	1915	5.24	27/55	0.6
December ..	0.501	63	77	51	3.63	13	15.82	1920	0.23	1913	4.75	13/10	0.4
Year { Totals	—	—	—	—	44.80	143	—	—	—	—	—	—	20.6
Year { Averages ..	0.393	68	—	—	—	—	—	—	—	—	—	—	—
Year { Extremes ..	—	—	90	42	—	—	25.30	6/1950	0.04	8/1885	11.05	28/3/42	—

(a) Standard 30 years' normal (1911-1940). (b) 1921-1950. (c) 1916 and 1959.

Dates in italics relate to nineteenth century.

CLIMATOLOGICAL DATA; CANBERRA, AUSTRALIAN CAPITAL TERRITORY.

(LAT. 35° 18' S., LONG. 149° 6' E. HEIGHT ABOVE M.S.L., 1,906 FT.)

Barometer, Wind, Evaporation, Lightning, Clouds and Clear Days.

Month.	Bar. corrected to 32° F. M. Sea Level and Stan- dard Gravity from 9 a.m. and 3 p.m. readings.	Wind. (Height of Anemometer 20 feet.)				Mean Amount of Evaporation (inches).	No. of Days of Lightning.	Mean Amount of Clouds, 9 a.m., and 3 p.m., (a)	No. of Clear Days.	
		Average Miles per Hour.	Highest Mean Speed in One Day (miles per hour).	Highest Gust Speed (miles per hour).	Prevailing Direction.					
					9 a.m.	3 p.m.				
No. of years of observations.	26	27	30	21(b)	27	27	28	20	26	27
January ..	29.856	4.7	14.9 23/33	65	NW	NW	8.31	1.5	4.9	7.3
February ..	29.900	4.2	15.3 24/33	64	E	NW	6.42	2.3	5.1	6.3
March ..	30.009	3.7	18.2 28/42	52	E	NW	5.20	0.2	5.1	6.9
April ..	30.059	3.6	18.6 8/45	52	NW	NW	3.28	0.3	5.4	4.7
May ..	30.126	3.0	13.2 27/58	64	NW	NW	1.95	0.2	5.6	5.8
June ..	30.120	3.6	16.1 2/30	60	NW	NW	1.29	0.1	6.0	4.5
July ..	30.133	3.4	23.4 7/31	62	NW	NW	1.27	0.0	5.7	5.6
August ..	30.065	4.1	15.7 25/36	59	NW	NW	1.81	0.1	5.4	5.7
September ..	30.057	4.2	17.4 28/34	61	NW	NW	2.87	0.4	5.1	6.1
October ..	29.954	4.3	14.7 12/57	74	NW	NW	4.43	1.0	5.4	5.2
November ..	29.885	4.7	17.2 28/42	66	NW	NW	5.87	1.1	5.5	4.5
December ..	29.834	4.7	16.1 11/38	66	NW	NW	7.64	0.7	5.0	6.3
Year { Totals	—	—	—	—	—	—	50.34	7.9	—	68.9
Averages	30.000	4.0	—	—	NW	NW	—	—	5.3	—
Extremes	—	—	23.4 7/31	74	—	—	—	—	—	—

(a) Scale 0-10.

(b) 1939 to 1959.

Temperature and Sunshine.

Month.	Mean Temperature (°Fahr.).			Extreme Shade Temperature (°Fahr.).		Extreme Range.	Extreme Temperature (°Fahr.).		Mean Daily Hours of Sunshine.
	Mean Max.	Mean Min.	Mean	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.	
No. of years over which observation extends.	29	29	29	32	32	32	(a)	32	27
January	82.4	56.0	69.2	107.4 11/39	38.0 1/56	69.4	—	30.1 10/50	8.4
February	80.7	56.1	68.4	99.8 13/33	35.0 (b)	64.8	—	26.5 23/43	7.3
March	76.2	52.7	64.4	99.1 6/38	34.8 31/49	64.3	—	26.4 26/35	7.2
April	66.7	45.5	56.1	89.7 6/38	29.0 29/34	60.7	—	19.0 18/44	6.7
May	59.3	39.1	49.2	72.6 1/36	22.5 (c)	50.1	—	15.6 (d)	5.2
June	52.6	35.7	44.1	64.9 1/54	18.1 20/35	43.9	—	8.9 25/44	4.2
July	51.8	33.8	42.8	63.5 16/34	20.0 (e)	43.5	—	10.8 9/37	4.8
August	55.1	35.4	45.3	71.0 24/54	21.0 3/29	50.0	—	10.1 6/44	5.8
September	61.4	38.9	50.1	81.5 16/34	25.2 6/46	56.3	—	13.0 6/45	7.2
October	67.0	44.2	55.6	90.0 13/46	29.0 24/28	61.0	—	18.2 2/45	7.8
November	72.9	48.7	60.8	101.4 19/44	32.2 11/36	69.2	—	22.9 6/56	8.2
December	79.5	53.3	66.4	103.5 27/38	36.0 24/28	67.5	—	29.1 21/56	8.5
Year { Averages	67.1	44.9	56.0	—	—	—	—	—	6.8
Extremes	—	—	—	107.4 11/39	18.1 20/6/35	89.3	—	8.9 25/6/44	—

(a) No record. (b) 22/1931 and 23/1931. (c) 9/1929 and 15/1957. (d) 13/1937 and 15/1946. (e) 19/1929, 9/1937 and 27/1943.

Humidity, Rainfall and Fog.

Month.	Vapour Pressure (inches)	Rel. Hum. (%) at 9 a.m.			Rainfall (inches).							Fog.
		Mean.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days of Rain.	Greatest Monthly.	Least Monthly.	Greatest in one Day.	Mean No. of Days of Fog.		
No. of years over which observation extends.	26	28	28	28	29	29	32	32	32	25		
January	0.370	53	69	39	2.13	7	6.69 1941	0.02 1932	3.22 30/58	0.1		
February	0.388	59	71	40	2.17	7	6.03 1948	0.01 1933	3.24 17/28	0.2		
March	0.378	66	82	48	2.48	7	12.69 1950	0.01 1940	2.56 5/59	1.0		
April	0.315	71	81	54	2.17	8	5.19 1952	0.07 1942	2.52 9/45	1.4		
May	0.254	79	89	67	2.06	8	6.13 1948	0.06 1935	3.88 3/48	4.8		
June	0.212	81	90	72	1.92	9	6.09 1931	0.18 1944	2.32 25/56	5.8		
July	0.196	81	91	73	1.61	10	4.09 1933	0.27 1940	2.02 13/33	5.3		
August	0.213	75	88	60	1.98	11	4.71 1939	0.36 (a)	2.07 12/29	2.4		
September	0.239	66	78	51	1.62	9	3.03 1937	0.13 1946	1.75 3/47	1.4		
October	0.273	60	72	46	2.77	11	6.98 1959	0.34 1940	5.19 21/59	0.4		
November	0.301	55	67	38	2.11	8	4.45 1950	0.28 1936	2.45 9/50	0.1		
December	0.338	51	70	37	1.86	8	8.80 1947	0.16 1938	2.29 28/29	0.0		
Year { Totals	—	—	—	—	24.88	103	—	—	—	22.9		
Averages	0.286	66	—	—	—	—	—	—	—	—		
Extremes	—	—	91	37	—	—	12.69 3/50	0.01 2/33	5.19 21/10/59	—		

(a) 1944 and 1949.

All dates relate to twentieth century.

CLIMATOLOGICAL DATA; MELBOURNE, VICTORIA.
(LAT. 37° 49' S., LONG. 144° 58' E. HEIGHT ABOVE M.S.L. 114 FT.)
Barometer, Wind, Evaporation, Lightning, Clouds and Clear Days.

Month.	Bar. corrected to 32° F. Mm. Sea Level and Standard Gravity from 9 a.m. and 3 p.m. readings.	Wind. (Height of Anemometer 93 feet.)				Mean Amount of Evaporation (inches).	No. of Days of Lightning.	Mean Amount of Clouds, 9 a.m., 3 p.m., 9 p.m.(g)	No. of Clear Days.	
		Average Miles per Hour.	Highest Mean Speed in One Day (miles per hour).	Highest Gust Speed (miles per hour).	Prevailing Direction.					
					9 a.m.					3 p.m.
No. of years of observations.	30(b)	15(c)	47	50	30(b)	30(b)	30(b)	30(b)	30(b)	
January	29.897	8.8	21.1 27/41	66	S & SW	S	6.55	1.8	4.9	6.8
February	29.950	8.4	19.0 13/47	74	N & S	S	5.10	2.3	4.8	6.4
March	30.025	7.8	17.2 19/50	66	N	S	4.26	1.8	5.3	5.5
April	30.092	7.1	19.9 16/43	67	N	S	2.53	1.2	5.9	4.6
May	30.113	7.4	21.8 1/57	72	N	N	1.57	0.5	6.1	3.4
June	30.097	7.2	22.8 16/47	62	N	N	1.18	0.4	6.5	2.7
July	30.079	8.7	20.9 9/44	68	N	N	1.16	0.3	6.3	2.9
August	30.048	8.2	21.3 20/42	65	N	N	1.54	0.9	6.0	3.1
September	30.001	8.5	21.0 21/59	69	N & W	N & S	2.41	1.3	5.9	3.3
October	29.968	8.4	18.6 12/52	69	N	S	3.54	1.8	6.1	3.8
November	29.951	8.6	21.2 13/58	71	S & SW	S	4.62	2.3	6.0	3.6
December	29.896	8.7	21.0 11/52	61	S & SW	S	5.85	1.9	5.6	4.5
Year	Totals	—	—	—	—	—	40.31	16.5	—	50.6
	Averages	30.010	8.1	—	—	N	S	—	—	—
	Extremes	—	—	22.8 16/6/47	74	—	—	—	—	—

(a) Scale 0-10.

(b) Standard 30 years' normal (1911-1940).

(c) Early records not comparable.

Temperature and Sunshine.

Month.	Mean Temperature (°Fahr.).			Extreme Shade Temperature (°Fahr.).		Extreme Range.	Extreme Temperature (°Fahr.).		Mean Daily Hours of Sunshine.
	Mean Max.	Mean Min.	Mean	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.	
No. of years over which observation extends.	30(a)	30(a)	30(a)	104	104	104	86(b)	100	35(c)
January	77.7	56.9	67.3	114.1 13/39	42.0 28/85	72.1	178.5 14/62	30.2 28/85	7.8
February	78.6	58.0	68.3	109.5 7/01	40.2 24/24	69.3	167.5 15/70	30.9 6/91	7.4
March	74.9	55.2	65.1	107.0 11/40	37.1 17/84	69.9	164.5 1/68	28.9 (d)	6.5
April	67.9	50.8	59.3	94.8 5/38	34.8 24/88	60.0	152.0 8/61	25.0 23/97	5.0
May	62.0	46.9	54.5	83.7 7/05	29.9 29/16	53.8	142.6 2/59	21.1 26/16	4.1
June	56.8	43.8	50.3	72.3 2/57	28.0 11/66	44.3	129.0 11/61	19.9 30/29	3.4
July	56.2	42.6	49.4	69.3 22/26	27.0 21/69	42.3	125.8 27/80	20.5 12/03	3.7
August	58.7	43.7	51.2	77.0 20/85	28.3 11/63	48.7	137.4 29/69	21.3 14/02	4.6
September	63.3	46.0	54.7	88.6 28/28	31.0 3/40	57.6	142.1 20/67	22.8 8/18	5.5
October	67.9	48.7	58.3	98.4 24/14	32.1 3/71	66.3	154.3 28/68	24.8 22/18	5.8
November	71.3	51.8	61.5	105.7 27/94	36.5 2/96	69.2	159.6 29/65	24.6 2/96	6.2
December	75.4	55.3	65.3	110.7 15/76	40.0 4/70	70.7	170.3 20/69	33.2 1/04	7.0
Year { Averages	67.6	50.0	58.8	—	—	—	—	—	5.6
Year { Extremes	—	—	—	114.1 13/1/39	27.0 21/7/1869	87.1	178.5 14/1/1862	19.9 30/6/29	—

(a) Standard 30 years' normal (1911-1940).

(b) Records discontinued, 1946.

(c) 1916-1950.

(d) 17/1884 and 20/1897.

Humidity, Rainfall and Fog.

Month.	Vapour Pres- sure (inches)	Rel. Hum. (%) at 9 a.m.			Rainfall (inches).							Fog.
		Mean. 9 a.m.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days of Rain.	Greatest Monthly.	Least Monthly.	Greatest in one Day.			
No. of years over which observation extends.	30(a)	30(a)	48	48	30(a)	30(a)	104		104	104	30(a)	
January ..	0.382	58	68	50	1.88	9	6.66 1941	0.01 1932	2.97 9/97	0.1		
February ..	0.417	62	77	48	2.00	8	7.72 1939	0.03 1870	3.44 26/46	0.3		
March ..	0.385	64	79	50	2.22	9	7.50 1911	0.14 1934	3.55 5/19	1.1		
April ..	0.351	72	82	66	2.30	13	6.71 1901	Nil 1923	2.28 22/01	2.3		
May ..	0.311	79	88	70	1.94	14	5.60 1942	0.14 1934	1.85 7/97	6.8		
June ..	0.276	83	92	75	2.06	16	4.51 1859	0.61 1958	1.74 21/04	6.5		
July ..	0.264	82	86	75	1.93	17	7.02 1891	0.57 1902	2.71 12/97	6.5		
August ..	0.271	76	82	65	2.02	17	4.35 1939	0.48 1903	1.94 26/24	3.7		
September ..	0.288	68	76	60	2.20	15	7.93 1916	0.52 1907	2.62 12/80	1.3		
October ..	0.307	62	67	52	2.63	14	7.61 1869	0.29 1914	3.00 17/69	0.3		
November ..	0.336	60	69	52	2.33	13	8.11 1954	0.25 1895	2.86 21/54	0.3		
December ..	0.373	59	69	48	2.38	11	7.18 1863	0.11 1904	3.92 4/54	0.2		
Year { Totals ..	—	—	—	—	25.89	156	—	—	—	29.4		
Year { Averages ..	0.323	69	—	—	—	—	—	—	—	—		
Year { Extremes ..	—	—	92	48	—	—	8.11 11/1954	Nil 4/1923	3.92 4/12/54	—		

(a) Standard 30 years' normal (1911-1940).

Dates in italics relate to nineteenth century.

CLIMATOLOGICAL DATA; HOBART, TASMANIA.
(LAT. 42° 53' S., LONG. 147° 20' E. HEIGHT ABOVE M.S.L. 177 Ft.)
Barometer, Wind, Evaporation, Lightning, Clouds and Clear Days.

Month.	Bar. corrected to 32° F. Mm. Sea Level and Stan- dard Gravity from 9 a.m. and 3 p.m. readings.	Wind. (Height of Anemometer 40 feet.)						Mean Amount of Evaporation (inches).	No. of Days of Lightning.	Mean Amount of Clouds, 9 a.m., 3 p.m., 9 p.m.(g)	No. of Clear Days.
		Average Miles per Hour.	Highest Mean Speed in One Day (miles per hour).	High- est Gust Speed (miles per hour).	Prevailing Direction.						
					9 a.m.	3 p.m.					
							30(b)				
No. of years of observations.	30(b)	30(b)	67		69	30(b)	30(b)	30(b)	30(b)	30(b)	30(b)
January ..	29.819	8.0	20.8	30/16	76	NNW	SSE	4.84	0.9	6.4	1.9
February ..	29.913	7.2	25.2	4/27	67	NNW	SSE	3.71	1.0	6.2	2.3
March ..	29.961	6.8	21.4	13/38	79	NW	SSE	3.10	1.2	6.1	2.4
April ..	29.997	6.7	24.1	9/52	74	NW	W	1.98	0.7	6.5	11.7
May ..	30.009	6.3	20.2	20/36	79	NNW	NW	1.37	0.4	6.1	2.4
June ..	29.986	6.2	23.7	27/20	75	NW	NW	0.91	0.4	6.2	2.4
July ..	29.958	6.5	22.9	22/53	78	NNW	NNW	0.94	0.3	6.1	2.0
August ..	29.906	6.8	25.5	19/26	87	NNW	NW	1.28	0.4	6.1	2.1
September ..	29.860	7.9	21.5	26/15	84	NNW	NW	1.97	0.7	6.3	1.5
October ..	29.833	8.2	19.2	8/12	74	NNW	SW	3.05	0.6	6.6	1.8
November ..	29.831	7.9	21.2	18/15	84	NNW	S	3.77	0.7	6.4	1.8
December ..	29.816	7.6	23.4	1/34	70	NNW	SSE	4.37	0.5	6.8	1.1
Year { Totals ..	29.907	7.2	—		—	—	—	31.29	7.8	—	22.1
Extremes	—	—	25.5 19/8/26		87	NNW	W	—	—	6.3	—

(a) Scale 0-10.

(b) Standard 30 years' normal (1913-1940).

Temperature and Sunshine.

Month.	Mean Temperature (°Fahr.).			Extreme Shade Temperature (°Fahr.).		Extreme Range.	Extreme Temperature (°Fahr.).		Mean Daily Hours of Sunshine.
	Mean	Max.	Min.	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.	
No. of years over which observation extends.	30(a)	30(a)	30(a)	90(b)	90(b)	90(b)	57(c)	72(b)	30
January ..	69.8	52.4	61.0	105.0 (d)	40.1 (e)	64.9	160.0 (f)	30.6 19/97	7.7
February ..	70.6	53.7	62.2	104.4 12/99	39.0 20/87	65.4	165.0 24/98	28.3 —/87	7.1
March ..	67.5	51.3	59.4	99.1 13/40	35.2 31/26	63.9	150.9 26/44	27.5 30/02	6.4
April ..	62.2	48.0	55.1	87.1 1/41	33.3 24/88	53.8	142.0 18/93	25.0 —/86	5.0
May ..	57.8	44.6	51.2	77.8 5/21	29.2 20/02	48.6	128.0 (g)	20.0 19/02	4.4
June ..	52.8	41.2	47.0	69.2 1/07	29.2 28/44	40.0	122.0 12/94	21.0 6/87	4.0
July ..	52.7	40.6	46.6	66.1 14/34	27.7 11/93	38.4	121.0 12/93	18.7 16/86	4.4
August ..	55.4	41.7	48.7	71.6 28/14	28.9 9/51	42.7	129.0 —/87	20.1 7/09	5.1
September ..	59.0	43.7	51.4	81.7 23/26	31.0 16/97	50.7	138.0 23/93	18.3 16/26	5.9
October ..	62.5	46.1	54.3	92.0 24/14	32.0 12/89	60.0	156.0 9/93	23.8 (h)	6.1
November ..	65.0	48.2	56.6	98.3 26/37	35.0 16/41	63.3	154.0 19/92	26.0 1/08	7.2
December ..	67.9	51.3	59.6	105.2 30/97	38.0 3/06	67.2	161.5 10/39	27.2 —/86	7.3
Year { Averages	61.9	46.9	54.4	—	—	—	—	—	5.9
Extremes	—	—	—	105.2 30/12/1897	27.7 11/7/1895	77.5 165.0 24/2/1898	18.3 16/9/26	—	—

(a) Standard 30 years' normal (1911-1940).

(b) Records 1855-1882 not comparable.

(c) Period 1934-1938 not comparable; records discontinued, 1946.

(d) 1/1900, 19/1959.

(e) 9/1937 and 11/1937.

(f) 5/1886

(g) —/1889 and —/1893.

(h) 1/1886 and —/1899.

Humidity, Rainfall and Fog.

Month.	Vapour Pres- sure (inches)	Rel. Hum. (%) at 9 a.m.			Rainfall (inches).							Fog.
		Mean 9 a.m.	Mean.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days of Rain.	Greatest Monthly.	Least Monthly.	Greatest in one Day.		
No. of years over which observation extends.	30(a)	54	69	69	30(a)	30(a)	77(b)	77(b)	77(b)	Mean No. of Days of Fog.		
										30(c)		
January ..	0.309	59	72	46	1.82	13	5.91 1893	0.17 (d)	2.96 30/16	0.0		
February ..	0.342	63	77	48	1.68	10	5.15 1954	0.11 1914	2.20 1/54	0.0		
March ..	0.323	67	77	52	2.13	13	10.05 1946	0.29 1943	3.47 17/46	0.3		
April ..	0.290	72	84	58	2.31	14	8.50 1935	0.07 1904	5.02 20/09	0.2		
May ..	0.263	78	89	65	1.71	14	8.43 1958	0.14 1913	1.75 2/93	0.9		
June ..	0.233	80	91	68	2.25	16	9.38 1954	0.28 1886	5.80 7/54	0.8		
July ..	0.227	80	94	72	2.14	17	6.02 1922	0.17 1950	2.51 18/22	1.0		
August ..	0.232	76	92	60	1.82	18	6.32 1946	0.30 1892	2.28 14/90	0.4		
September ..	0.240	67	85	58	1.90	17	7.93 1957	0.38 1951	6.15 15/57	0.1		
October ..	0.258	63	73	51	2.52	18	7.60 1947	0.39 1914	2.58 4/06	0.0		
November ..	0.274	60	72	50	2.23	16	7.39 1885	0.33 1921	3.70 30/85	0.1		
December ..	0.306	58	67	45	2.52	14	7.72 1916	0.17 1931	3.33 5/41	0.0		
Year { Totals ..	—	—	—	—	25.03	180	—	—	—	3.8		
Averages	0.271	69	—	—	—	—	—	—	—	—		
Extremes	—	—	94	45	—	—	10.05 3/1946	0.07 4/1904	6.15 15/9/57	—		

(a) Standard 30 years' normal (1911-1940).

(b) Records prior to 1883 not comparable.

(c) 1922-1951.

(d) 1915 and 1958.

Dates in italics relate to nineteenth century.

CHAPTER III.

GENERAL GOVERNMENT.

§ 1. Scheme of Parliamentary Government.

1. *General.*—The legislative power of the Commonwealth is vested in the Parliament of the Commonwealth, which consists of the Sovereign, the Senate, and the House of Representatives. The Sovereign is represented throughout the Commonwealth by the Governor-General who, subject to the Constitution of the Commonwealth, has such powers and functions as the Sovereign is pleased to assign to him. In each State, there is a State Governor who is the representative of the Sovereign for the State and who exercises such powers within the State as are conferred upon him by the Letters Patent which constitute his office and by the instructions which inform him in detail of the manner in which his duties are to be fulfilled. The Legislature in each State was bi-cameral until 1922, in which year the Queensland Upper House was abolished and the Parliament became uni-cameral. In the bi-cameral Parliaments, the Upper House is known as the Senate in the Commonwealth Parliament, and as the Legislative Council in the State Parliaments while the Lower House is known as the House of Representatives in the Commonwealth Parliament, as the Legislative Assembly in the State Parliaments of New South Wales, Victoria and Western Australia, and as the House of Assembly in the State Parliaments of South Australia and Tasmania. In Queensland, the Legislative Assembly constitutes the legislature. The legislative powers of the Parliaments are delimited by the Commonwealth and State Constitutions. The Assembly, which is the larger House, is, in all cases, elective, the franchise extending to adult British subjects with certain residential qualifications. The Council in each of the States other than New South Wales is elected by the people of the State concerned, the constituencies being differently arranged and, in general, some property or special qualification for the electorate being required. In Victoria, however, under the Legislative Council Reform Act passed in October, 1950, adult suffrage was adopted for Legislative Council elections. In the case of New South Wales, the Council is elected by the members of both Houses of Parliament at a simultaneous sitting. In the Federal Parliament, the qualifications for the franchise are identical for both Houses, extending to adult British subjects who have lived in Australia for six months continuously.

2. *The Sovereign.*—(i) *Accession of Queen Elizabeth II.* On 7th February, 1952, the Governor-General and members of the Federal Executive Council proclaimed Princess Elizabeth Queen Elizabeth the Second, Queen of this Realm and of all Her other Realms and Territories, Head of the Commonwealth, Defender of the Faith, Supreme Liege Lady in and over the Commonwealth of Australia. The coronation of Her Majesty in Westminster Abbey took place on 2nd June, 1953.

(ii) *Royal Style and Titles Act 1953.* At a conference of Prime Ministers and other representatives of the British Commonwealth in London in December, 1952, it was agreed that the Royal Style and Titles then in use were not in accord with current relationships within the British Commonwealth and that there was need of a new form which would, in particular, "reflect the special position of the Sovereign as Head of the Commonwealth".

It was therefore decided that each member of the British Commonwealth should use a form of the Royal Style and Titles suited for its own circumstances, while retaining as a common element the description "Queen of Her other Realms and Territories and Head of the Commonwealth"; and that consultation between all countries of the Commonwealth should take place on any future proposal to change the form of the Royal Style and Titles used in any country.

To give effect to these decisions in Australia, the Royal Style and Titles Act was passed on 3rd April, 1953, giving Parliament's assent to the adoption by the Queen, for use in relation to the Commonwealth of Australia and its Territories, of the following Royal Style and Titles:—"Elizabeth the Second, by the Grace of God of the United Kingdom,

Australia and Her other Realms and Territories Queen, Head of the Commonwealth, Defender of the Faith." The Act also approves the adoption by the Queen of a Royal Style and Titles for use in relation to other countries of the British Commonwealth in accordance with the principles formulated at the London conference.

(iii) *Authorization of a Royal Great Seal.* By warrant published in the *Commonwealth Gazette* of 17th November, 1955, Her Majesty authorized the Great Seal of the Commonwealth to be used as a Royal Great Seal in sealing all things whatsoever (other than things that pass the said Great Seal) that bear Her Majesty's Sign Manual and the counter-signature of one of Her Ministers of State for the Commonwealth.

3. Powers and Functions of the Governor-General and of the State Governors.—

(i) *Governor-General of the Commonwealth.* Section 2 of the Commonwealth Constitution provides as follows:—

"A Governor-General appointed by the Queen shall be Her Majesty's representative in the Commonwealth, and shall have and may exercise in the Commonwealth during the Queen's pleasure, but subject to this Constitution, such powers and functions of the Queen as Her Majesty may be pleased to assign to him."

As the Queen's representative in Australia, the Governor-General exercises certain prerogative powers and functions assigned to him by the Queen—either by Letters Patent (see Letters Patent dated 29th October, 1900, and 30th October, 1958), by Instructions under the Royal Sign Manual and Signet, by Commission issued to him under the Royal Sign Manual and Signet, or by any instrument of delegation under section 2 of the Constitution. Powers which have been so assigned include, amongst others, the power to appoint a Deputy or Deputies of the Governor-General, to administer or authorize any other person to administer the Oath of Allegiance, to grant pardons and to remit fines for offences against the laws of the Commonwealth and to appoint certain officers in the Diplomatic or Consular Service of the Commonwealth.

Other powers and functions are conferred on the Governor-General by the Constitution. For example, under section 5 of the Constitution he may appoint times for holding the sessions of the Parliament, prorogue Parliament and dissolve the House of Representatives. Under section 32, the Governor-General in Council may cause writs to be issued for general elections of members of the House of Representatives. Under section 58, he assents in the Queen's name to a proposed law passed by both Houses of the Parliament or withholds assent, or reserves the law for the Queen's pleasure; or he may return the proposed law to the House in which it originated and may transmit therewith any amendments which he may recommend. Under section 61, he exercises the executive power of the Commonwealth; under section 62, he chooses and summons Executive Councillors, who hold office during his pleasure; and under section 64, he may appoint Ministers of State for the Commonwealth. By section 68, the command in chief of the naval and military forces of the Commonwealth is vested in the Governor-General, as the Queen's representative. Under the conventions of responsible government obtaining in Commonwealth countries, the Governor-General's executive functions generally are exercised on the advice of Ministers of State. In this regard, the Governor-General's position has become assimilated to that of the Queen in relation to her Ministers of State for the United Kingdom.

In addition, many powers and functions are exercised by the Governor-General under Acts of the Commonwealth Parliament. Most Acts, for example, provide that the Governor-General may make regulations, not inconsistent with the Act, either generally to give effect to the Act or to cover certain matters specified in the power. The Governor-General may be authorized by statute to issue proclamations—for example, to declare an Act in force or a state of things to exist, e.g. the existence of an epidemic. The Governor-General has been given power by statute to legislate for certain Territories of the Commonwealth. Other statutory powers include the power to appoint and dismiss certain office holders. A reference to the Governor-General, in Acts of the Commonwealth Parliament, means, unless the contrary intention appears, the Governor-General acting with the advice of the Executive Council (Acts Interpretation Act 1901–1957, section 16A).

(ii) *Governors of the States.* The Queen is represented in each of the States by a Governor, the office having been constituted by Letters Patent under the Great Seal of the United Kingdom of various dates.

The Governors of the States exercise prerogative powers conferred on them by these Letters Patent, their Commissions of appointment, and the "Governor's Instructions" given them under the Royal Sign Manual and Signet or other instrument as specified in the Letters Patent. In addition, they have been invested with various statutory functions, either under the State Constitutions, conferred by Imperial Act, or by Act of the Parliament of the State.

A Governor of a State assents in the Queen's name to Bills passed by the Parliament of the State, except those reserved for the Royal assent. The latter include certain classes of Bills which are regulated by the Constitution Acts and by the Governor's Instructions. He administers the prerogative of mercy by the reprieve or pardon of criminal offenders within his jurisdiction, and may remit fines and penalties due to the Crown.

In the performance of his functions generally, particularly those conferred by Statute, the Governor of a State acts on the advice of Ministers of State for the State.

(iii) *Holders of Office.* For the names of the Governors-General since the inception of the Commonwealth and the present State Governors, see § 3, page 73.

4. The Cabinet and Executive Government.—(i) *General.* Both in the Commonwealth and in the States, executive government is based on the system which was evolved in Britain in the 18th century, and which is generally known as "Cabinet" or "responsible" government. Its essence is that the head of the State (Her Majesty the Queen, and her representative, the Governor-General or Governor) should perform Governmental acts on the advice of her Ministers; that she should choose her principal Ministers of State from members of Parliament belonging to the party, or coalition of parties, commanding a majority in the popular House; that the Ministry so chosen should be collectively responsible to that House for the government of the country; and that the Ministry should resign if it ceases to command a majority there.

The Cabinet system operates chiefly by means of constitutional conventions, customs, or understandings, and through institutions that do not form part of the legal structure of the government at all. The constitutions of the Commonwealth and the States make fuller legal provision for the Cabinet system than the British Constitution does—for example, by requiring that Ministers shall either be, or within a prescribed period become, members of the Legislature. In general, however, the legal structure of the executive government remains the same as it was before the establishment of the Cabinet system.

The executive power of the Commonwealth is exercisable by the Governor-General, and that of the States by the Governor. In each case, he is advised by an Executive Council, which, however, meets only for certain formal purposes, as explained below. The whole policy of a Ministry is, in practice, determined by some or all of the Ministers of State, meeting without the Governor-General or Governor under the chairmanship of the Prime Minister or Premier. This group of Ministers is known as the Cabinet.

(ii) *The Cabinet.* This body does not form part of the legal mechanism of government. Its meetings are private and deliberative. The actual Ministers of the day alone are present, no records of the meetings are made public, and the decisions taken have, in themselves, no legal effect. In Australia, until January, 1956, all Ministers were members of the Cabinet. Since then, however, although in the States all Ministers are members of the Cabinet, the Commonwealth ministry is made up of twelve senior Ministers, who constitute the Cabinet, and ten Ministers of non-Cabinet rank who attend meetings of the Cabinet only when required, as, for example, when the business of the Cabinet concerns their departments. As Ministers are the leaders of the party or parties commanding a majority in the popular House, the Cabinet substantially controls, in ordinary circumstances, not only the general legislative programme of Parliament, but the whole course of Parliamentary proceedings. In effect, though not in form, the Cabinet, by reason of the fact that all Ministers are members of the Executive Council, is also the dominant element in the executive government of the country. Even in summoning, proroguing or dissolving Parliament, the Governor-General or Governor is usually guided by the advice tendered him by the Cabinet, through the Prime Minister or Premier, though legally the discretion is vested in the Governor-General or Governor himself.

(iii) *The Executive Council.* This body is usually presided over by the Governor-General or Governor, the members thereof holding office during his pleasure. All Ministers of State must be members of the Executive Council. In the Commonwealth, and also in the States of Victoria and Tasmania, Ministers remain members of the Executive Council on leaving office, but are not summoned to attend its meetings, for it is an essential feature of the Cabinet system that attendance should be limited to the Ministers of the day. The

meetings of the Executive Council are formal and official in character, and a record of proceedings is kept by the Secretary or Clerk. At Executive Council meetings, the decisions of the Cabinet are (where necessary) given legal form, appointments made, resignations accepted, proclamations issued, and regulations and the like approved.

(iv) *The Appointment of Ministers.* Legally, Ministers hold office during the pleasure of the Governor-General or Governor. In practice, however, the discretion of the Queen's representative in the choice of Ministers is limited by the conventions on which the Cabinet system rests. Australian practice follows, broadly, that of the United Kingdom. When a Ministry resigns, the Crown's custom is to send for the leader of the party which commands, or is likely to be able to command, a majority in the popular House, and to commission him, as Prime Minister or Premier, to "form a Ministry"—that is, to nominate other persons to be appointed as Ministers of State and to serve as his colleagues in the Cabinet.

The customary procedure in connexion with the resignation or acceptance of office by a Ministry is described fully in previous issues of the Official Year Book (*see* No. 6, p. 942). It may be added, however, that legislation now exists in all States, the effect of which is to obviate the necessity of responsible Ministers vacating their seats in Parliament on appointment to office.

(v) *Ministers in Upper and Lower Houses.* The following table shows the number of Ministers with seats in the Upper or Lower Houses of each Parliament in December, 1960:—

AUSTRALIAN PARLIAMENTS: MINISTERS IN UPPER OR LOWER HOUSES, DECEMBER, 1960.

Ministers with Seats in—	C'wealth.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total .
The Upper House ..	5	2	4	(a)	3	2	1	17
The Lower House ..	17	14	10	11	5	8	8	73
Total ..	22	16	14	11	8	10	9	90

(a) Abolished in 1922.

For the names of the occupants of ministerial office in each of the Parliaments of Australia in December, 1960, *see* § 3 of this chapter, page 73. Subsequent changes will be found in the Appendix to this volume.

(vi) *Numbers and Salaries of Commonwealth Ministers.* Under sections 65 and 66, respectively, of the Constitution of the Commonwealth, the number of Ministers of State was not to exceed seven, and the annual sum payable for their salaries was not to exceed £12,000, each provision to operate, however, "until the Parliament otherwise provides."

Subsequently, the number and salaries were increased to 8—£13,650 (1915) and to 9—£15,300 (1917). During the period of financial emergency in the early thirties, the ministerial salary appropriation was reduced to as low as £10,710 a year, and was not restored to its former level until 1938, when the appropriation was £16,950. During the period of restoration of salary, the number of Ministers was increased to 10 (1935). Later increases were as follows:—to 11—£18,600 (1938); 19—£21,250 (1941) (these increases were war-time provisions, extended into peacetime in 1946); £27,650 (1947—number unaltered); 20—£29,000 (1951); £41,000 (1952—number unaltered); 22—£46,500 (1956); £66,600 (1959—number unaltered). In 1938, an additional ministerial allowance of £1,500 a year was granted to the Prime Minister; this was increased to £3,500 a year (exempt from income tax) in 1952 and at the same time an additional ministerial allowance of £1,000 a year (exempt from income tax) was granted to each other Minister. This latter figure was increased, in 1959, to £1,500 a year and the income tax exemption was removed.

All amounts payable in the foregoing paragraphs are in addition to amounts payable as Parliamentary allowances (*see* paras. 5 and 6 following).

5. *Number and Salary of Members of the Legislatures, Australian Parliaments, December, 1960.*—The following table shows the number and annual salary of members in each of the legislative chambers in December, 1960:—

AUSTRALIAN PARLIAMENTS: MEMBERS AND ANNUAL SALARIES,
31st DECEMBER, 1960.

Members in—	C'wealth.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
NUMBER OF MEMBERS.								
Upper House ..	60	60	34	(a)	20	30	19	223
Lower House ..	124	94	66	78	39	50	35	486
Total ..	184	154	100	78	59	80	54	709

ANNUAL SALARY.
(£.)

Upper House ..	(b) 2,750	500	(c) 2,000	(a)	(d) 2,000	(e) 2,220	(f) 1,382	..
Lower House ..	(b) 2,750	(g) 2,350	(c) 2,000	h £2,501 10s.	(d) 2,000	(e) 2,220	(f) 1,382	..

(a) Abolished in 1922. (b) Plus expense allowances—Senators, £800; Members of the House of Representatives, city electorates, £850, country electorates, £1,050. See also para. 6 following. (c) Plus allowance of £550 for metropolitan, £750 for urban, £850 for inner country and £950 for outer country electorates. (d) Plus allowance of £550 where electorate is less than 50 miles from Adelaide; £700 if more than 50 miles, £800 if more than 200 miles. (e) Plus allowances varying from £250 to £450 according to distance of electorate from Perth. (f) Plus allowance according to area of electorate and distance from the capital varying from £250 to £550 in the case of the Legislative Council, and from £500 to £800 in the case of the House of Assembly. (g) Plus allowance varying from £650 to £950 according to remoteness of electorate. (h) Plus marginal allowances of £105 to £125 for metropolitan electorates, £150 to £250 for provincial cities electorates and £150 to £450 for country electorates.

6. **Commonwealth Parliamentary Allowances.** Section 48 of the Commonwealth Constitution granted to each senator and member of the House of Representatives an allowance of £400 a year until Parliament should decide to alter it. This general allowance has been altered on several occasions (see Official Year Book No. 42, pp. 69 and 70) and in 1959 was raised to £2,750 a year. Certain additional allowances are also provided for holders of parliamentary offices, etc.

7. **Enactments of the Parliaments.**—In the Commonwealth, all laws are enacted in the name of the Sovereign, the Senate, and the House of Representatives. The subjects with respect to which the Commonwealth Parliament is empowered to make laws are enumerated in the Constitution. In the States, other than South Australia and Tasmania, laws are enacted in the name of the Sovereign by and with the consent of the Legislative Council (except in Queensland) and Legislative Assembly. In South Australia and Tasmania, laws are expressed to be enacted in the name of the Governor of the State, with the advice and consent of the Parliament in the case of South Australia, and of the Legislative Council and House of Assembly in the case of Tasmania. The Governor-General or the State Governor acts on behalf of, and in the name of, the Sovereign in assenting to Bills passed by the Legislatures but he may reserve them for the special consideration of the Sovereign. The Parliaments of the States are empowered generally, subject to the Commonwealth Constitution, to make laws in and for their respective States, in all cases whatsoever. Subject to certain limitations, they may alter, repeal, or vary their Constitutions. Where a law of a State is inconsistent with a law of the Commonwealth, the latter prevails, and the former is, to the extent of the inconsistency, invalid.

§ 2. Parliaments and Elections.

1. **Commonwealth.**—(i) *Qualifications for Membership and for Franchise—Commonwealth Parliament.* Qualifications necessary for membership of either House of the Commonwealth Parliament are possessed by any British subject, twenty-one years of age

or over, who has resided in the Commonwealth for at least three years and who is, or is qualified to become, an elector of the Commonwealth. Qualifications for Commonwealth franchise are possessed by any British subject, not under twenty-one years of age and not disentitled on racial or other grounds, who has lived in Australia for six months continuously. Residence in a sub-division for a period of one month prior to enrolment is necessary to enable a qualified person to enrol. Enrolment and voting are compulsory. A member of the Defence Forces on service outside Australia who is a British subject not less than 21 years of age and has lived in Australia for six months continuously is entitled to vote at Commonwealth elections whether enrolled or not.

The principal reasons for disqualification of persons otherwise eligible as members of either Commonwealth House are:—Membership of the other House, allegiance to a foreign power, being attainted of treason, being convicted and under sentence for any offence punishable by imprisonment for one year or longer, being an undischarged bankrupt or insolvent, holding office of profit under the Crown (with certain exceptions), or having pecuniary interest in any agreement with the public service of the Commonwealth except as a member of an incorporated company of more than 25 persons. Persons of unsound mind, attainted of treason, convicted and under sentence for any offence punishable by imprisonment for one year or longer, or of certain non-European races are excluded from the franchise. In the main, these or similar grounds for disqualification apply also to State Parliament membership and franchise.

(ii) *Commonwealth Parliaments and Elections.* From the establishment of the Commonwealth until 1949, the Senate consisted of 36 members, six being returned by each of the original federating States. The Constitution empowers Parliament to increase or decrease the size of the Parliament and, as the population of the Commonwealth had more than doubled since its inception, the Parliament enacted legislation in 1948 enlarging both Houses of Parliament and providing a representation ratio nearer to the proportion which existed at Federation. Thus, the Representation Act 1948 provided that there shall be ten Senators from each State instead of six, increasing the total to 60 Senators. To effect this transition in the Senate, seven Senators were elected from each State at the elections of 1949, four taking office immediately the Senate sat after the election, the remaining three commencing their term on the usual date—1st July, 1950. Members of this Chamber are normally elected for a term of six years, but half the members retire at the end of every third year, and they are eligible for re-election. Accordingly, at each normal election of Senators, five Senators are now elected in each State, making 30 to be elected at each such election.

In accordance with the constitution, the total number of members of the House of Representatives must be as nearly as practicable double that of the Senate. Consequently, in terms of the Constitution and the Representation Act 1905–1938, from the date of the 1949 elections the number of members in the House of Representatives was increased from 74 to 121 (excluding the members for the internal Territories). As the States are represented in the House of Representatives on a population basis, the numbers were increased as follows:—New South Wales—from 28 to 47; Victoria—from 20 to 33; Queensland—from 10 to 18; South Australia—from 6 to 10; and Western Australia—from 5 to 8. Tasmania's representation remained at 5 and the total was increased from 74 to 121. The increase in the number of members of Parliament necessitated a redistribution of seats and a redetermination of electoral boundaries. This was carried out by Distribution Commissioners in each State on a quota basis, but taking into account community or diversity of interest, means of communication, physical features, existing boundaries of divisions and sub-divisions, and State electoral boundaries.

The population as disclosed by the Census taken on 30th June, 1954, necessitated a further alteration in representation in the House of Representatives in respect of New South Wales, South Australia, and Western Australia. Representation as from the general election for the House of Representatives on 10th December, 1955, is New South Wales 46, Victoria 33, Queensland 18, South Australia 11, Western Australia 9, Tasmania 5, the total number of members (excluding the members for the internal Territories) being increased from 121 to 122. A redistribution of electoral boundaries was effected by Distribution Commissioners appointed in each State.

Since the general elections of 1922, the Northern Territory has been represented by one member in the House of Representatives. The Australian Capital Territory Representation Act 1948 gave similar representation to the Australian Capital Territory as from the elections of 1949. The members for the Territories may join in the debates but are

not entitled to vote, except on any proposed law which relates solely to the respective Territories, on a motion for the disallowance of any ordinance of the Territory or on any amendment to such motion, or on a motion for the disallowance of a regulation under an ordinance. The Commonwealth Parliament, however, when providing for a Legislative Council for the Northern Territory in 1947, relinquished the power to disallow ordinances for that Territory.

The Constitution provides for a minimum of five members for each original State. Members of the House of Representatives are elected for the duration of the Parliament, which is limited to three years. At elections for Senators, the whole State constitutes the electorate. For the purposes of elections for the House of Representatives, the State is divided into single electorates corresponding in number with the number of members to which the State is entitled. Further information regarding the Senate and the House of Representatives is given in earlier issues of the Official Year Book.

There have been twenty-two complete Parliaments since Federation. Until 1927, the Parliament met in Melbourne; it now meets in Canberra, the first meeting at Parliament House, Canberra, being opened by the late King George VI., then Duke of York, on 9th May, 1927.

The fifth Parliament, which was opened on 9th July, 1913, was dissolved on 30th July, 1914 in somewhat unusual circumstances, when for the first time in the history of the Commonwealth, a deadlock occurred between the Senate and the House of Representatives, and, in accordance with section 57 of the Constitution which provides for such an eventuality, both Houses were dissolved by the Governor-General. The nineteenth Parliament was similarly dissolved. It opened on 22nd February, 1950, but on 19th March, 1951, in its first session, a double dissolution was proclaimed for the second time since the inception of the Commonwealth.

The system of voting for the House of Representatives is preferential. Until 1948, voting for the Senate was also preferential, but the Commonwealth Electoral Act 1948, introduced with the Representation Act 1948 to enlarge the Commonwealth Parliament (*see* p. 66), changed the system of scrutiny and counting of votes in Senate elections from preferential to that of proportional representation. For a description of the system, *see* Official Year Book No. 38, pages 82-3.

For particulars of electors enrolled and of electors who voted at the various Commonwealth elections, *see* earlier Year Books. Elections for the Senate have usually been held at the same time as those for the House of Representatives. The double dissolution of the nineteenth Parliament, however, referred to above, led to the holding of Senate elections on separate dates. An election for the Senate was held on 9th May, 1953, and a further election was due within one year of 30th June, 1956, i.e. the date of the completion of the term of office of half the elected Senators. The twenty-first Parliament opened on 4th August, 1954, and was dissolved on 4th November, 1955, enabling the election for the Senate and the House of Representatives again to be held simultaneously.

The twenty-second Parliament opened on 15th February, 1956, and was dissolved on 14th October, 1958. Elections for both Houses were held on 22nd November, 1958, and particulars of electors and voting in the several States were as follows:—

SENATE ELECTION, 22nd NOVEMBER, 1958.

State	Electors Enrolled.			Electors who Voted.			Percentage of Electors who Voted.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	1,005,431	1,058,873	2,064,304	961,725	1,003,397	1,965,122	95.65	94.76	95.20
Victoria ..	731,950	772,960	1,504,910	704,332	736,171	1,440,503	96.23	95.24	95.72
Queensland ..	393,437	390,917	784,354	373,067	371,876	744,943	94.82	95.13	94.98
South Australia	239,579	251,351	490,930	232,673	241,159	473,832	97.12	95.95	96.52
West. Australia	180,508	180,901	361,409	171,630	173,168	344,798	95.08	95.73	95.40
Tasmania ..	88,197	90,520	178,717	85,552	86,359	171,911	97.00	95.40	96.19
Total ..	2,639,102	2,745,522	5,384,624	2,528,979	2,612,130	5,141,109	95.83	95.14	95.48

ELECTION FOR HOUSE OF REPRESENTATIVES, 22nd NOVEMBER, 1958.

State.	Electors Enrolled.			Electors who Voted.			Percentage of Electors who Voted.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	1,005,431	1,058,873	2,064,304	961,725	1,003,397	1,965,122	95.65	94.76	95.20
Victoria ..	731,950	772,960	1,504,910	704,332	736,171	1,440,503	96.23	95.24	95.72
Queensland ..	393,437	390,917	784,354	373,067	371,876	744,943	94.82	95.13	94.98
South Australia	239,579	251,351	490,930	232,673	241,159	473,832	97.12	95.95	96.52
West. Australia	180,508	180,901	361,409	171,630	173,168	344,798	95.08	95.73	95.40
Tasmania ..	88,197	90,520	178,717	85,552	86,359	171,911	97.00	95.40	96.19
Nor. Territory ..	4,498	3,180	7,678	3,330	2,513	5,843	74.03	79.03	76.10
Aust. Cap. Terr.	10,593	9,970	20,563	9,786	9,362	19,148	92.38	93.90	93.12
Australia ..	2,654,193	2,758,672	5,412,865	2,542,095	2,624,005	5,166,100	95.78	95.12	95.44

The twenty-third Parliament opened on 17th February, 1959.

(iii) *Commonwealth Referendums.* According to Section 128 of the Constitution, any proposed law for the alteration of the Constitution, in addition to being passed by an absolute majority of each House of Parliament, must be submitted to a referendum of the electors in each State, and must be approved also by a majority of the States and of the electors who voted, before it can be presented for Royal Assent. So far, 24 proposals have been submitted to referendums and the consent of the electors has been received in four cases only, the first in relation to the election of Senators in 1906, the second and third in respect of State Debts—one in 1910 and the other in 1928—and the fourth in respect of Social Services in 1946. Details of the various referendums and the voting thereon were given in previous issues of the Official Year Book (*see* No. 18, p. 87, No. 31, p. 67, No. 35, p. 60, No. 36, p. 61, No. 37, pp. 64–5, No. 38, p. 84 and No. 40, p. 56), and a brief summary was given in Official Year Book No. 41 (*see* p. 67).

2. *State Elections.*—(i) *Latest in each State.* (a) *Upper Houses.* The following table shows particulars of the voting at the most recent elections for the Upper Houses or Legislative Councils in the States of Victoria, South Australia, Western Australia and Tasmania. In New South Wales, members of the Legislative Council are elected at simultaneous sittings of the members of both Houses, in Queensland there has been no Legislative Council since 1922, and in Tasmania three members of the Council are elected annually (but four in each sixth year) and the Council cannot be dissolved as a whole.

STATE UPPER HOUSE ELECTIONS.

State.	Year of Latest Election.	Electors Enrolled—Whole State.			Contested Electorates.					
					Electors who Voted.			Percentage of Electors who Voted.		
		Males.	Fe-males.	Total.						
Victoria.. ..	1958	722,231	766,062	1,488,293	625,020	658,645	1,283,665	93.25	91.89	92.54
South Australia ..	1959	(a)	(a)	187,248	(a)	(a)	70,097	(a)	(a)	81.14
Western Australia	1958	112,023	38,648	150,671	38,062	15,222	53,284	42.65	44.52	43.17
Tasmania ..	1960	613,902	614,519	1,228,421	11,385	11,332	22,717	81.89	78.05	79.93

(a) No available.

(b) Total electors enrolled in contested divisions.

(b) *Lower Houses.* The following table shows particulars of the voting at the most recent election for the Lower House in each State:—

STATE LOWER HOUSE ELECTIONS.

State.	Year of Latest Election.	Electors Enrolled—Whole State.			Contested Electorates.					
					Electors who Voted.			Percentage of Electors who Voted.		
		Males.	Fe-males.	Total.						
New South Wales	1959	101,009	106,517	207,526	856,071	883,510	173,958	94.60	93.42	94.00
Victoria ..	1958	717,192	760,873	1,478,065	679,807	713,006	139,281	94.79	93.71	94.23
Queensland ..	1960	415,222	416,176	831,398	375,801	377,130	752,931	(a)	(a)	92.50
South Australia ..	1959	(a)	(a)	497,456	(a)	(a)	400,531	(a)	(a)	93.95
Western Australia ..	1959	181,298	180,331	361,629	134,130	135,192	269,322	91.81	92.91	92.36
Tasmania ..	1959	89,034	91,310	180,344	85,120	85,439	170,559	95.60	93.57	94.57

(a) Not available.

(ii) *Elections in Earlier Years.* Official Year Book No. 45 and earlier issues contain particulars of the voting at elections for both Upper and Lower State Houses in years prior to those shown above, and some general information is given in the following paragraphs.

3. The Parliament of New South Wales.—The two Houses of Parliament are the Legislative Council (or Upper House) and the Legislative Assembly (or Lower House).

The Legislative Council consists of 60 members. At elections held every third year, a group of 15 members is elected for 12 years. The electoral body comprises the members, for the time being, of the two Houses of Parliament, who record their votes by secret ballot at simultaneous sittings of both Houses. Casual vacancies are filled by a like election. Any man or woman who is entitled to vote at the election of members of the Legislative Assembly, and has been resident for at least three years in the Commonwealth of Australia, is eligible for election as a member of the Legislative Council.

The Legislative Assembly, which is the more important House, consists of 94 members elected on a system of universal adult suffrage, by secret ballot, for a maximum period of three years. Adult British subjects, men and women, are qualified for enrolment as electors when they have resided in the Commonwealth for a period of six months, in the State for three months, and in any sub-division of an electoral district for one month preceding the date of claim for enrolment. Any person qualified to vote at any State election is eligible to be elected to the Legislative Assembly. Casual vacancies may be filled at by-elections.

Persons are disqualified either as parliamentary members or voters for reasons generally the same as those outlined on page 66.

Since the introduction of responsible government in New South Wales, there have been 38 complete Parliaments, the first of which opened on 22nd May, 1856, and was dissolved on 19th December, 1857, while the thirty-eighth was dissolved on 16th February, 1959. The thirty-ninth Parliament opened on 21st April, 1959.

The Legislative Assembly elections of 1920, 1922, and 1925 were contested on the principle of proportional representation, but a reversion to the system of single seats and preferential voting was made at all later appeals to the people. The principle of one elector one vote was adopted in 1894, and that of compulsory enrolment in 1921. Compulsory voting was introduced at the 1930 election. The franchise was extended to women (Women's Franchise Act) in 1902, and was exercised by them for the first time in 1904.

4. The Parliament of Victoria.—Both of the Victorian legislative Chambers are elective bodies, but there is a considerable difference in the number of members of each House, and there was also, until the Legislative Council Reform Act 1950, a difference in the qualifications necessary for members and electors. The number of members in the Upper House is 34, two members being returned for each of the 17 provinces, and in the Lower House, 66, one member being returned for each electorate. In the Legislative Council, the tenure of the seat is for six years, except that one-half of the members who are elected for provinces at any general election for the Council are entitled to hold their seats for a period of only three years, one member for each of the 17 provinces retiring every third year. Members of the Legislative Assembly are elected for the duration of Parliament, which is limited to three years. Under the Legislative Council Provinces Act (1959), the number of Provinces will be increased to 18 for the 1961 elections, and to 19 for the 1964 elections, the number of seats in the Upper House being correspondingly increased to 36 and 38.

Prior to the passing of the Legislative Council Reform Act, 1950, which operated from November, 1951, property qualifications were required for membership of, and franchise for, the Legislative Council. As alternatives to the property qualifications for the Council franchise, certain professional and academic qualifications were also allowed. As amended, however, the qualifications for membership of the Council are possessed by any adult natural-born subject of the Queen, or by any adult alien naturalized for five years and resident in Victoria for two years. Entitlement for enrolment as an elector is extended to every adult natural-born or naturalized subject who has resided in Australia for at least six months continuously and in Victoria for at least three months and in any subdivision for at least one month immediately preceding the date of claim for enrolment. These qualifications for membership and electors apply also in respect of the Legislative Assembly. Reasons for disqualification follow the general pattern for Australia (*see p. 66*).

Since the introduction of responsible government in Victoria, there have been 40 complete Parliaments, the first of which opened on 21st November, 1856, and closed on 9th August, 1859, while the fortieth was dissolved on 18th April, 1958. The forty-first Parliament was opened on 8th July, 1958.

Single voting is observed in elections held for either House, plural voting having been abolished for the Legislative Assembly in 1899 and for the Legislative Council in 1937. A preferential system of voting (*see Official Year Book No. 6, p. 1182*) was adopted for the first time in Victoria at the Assembly election held in November, 1911. The franchise was extended to women by the Adult Suffrage Act 1908, while voting at elections was made compulsory for the Legislative Assembly in 1926 and for the Legislative Council in 1935.

5. The Parliament of Queensland.—As stated previously, the Legislative Council in Queensland was abolished in 1922, the date of Royal Assent to the Act being 23rd March, 1922. The Legislative Assembly is composed of 78 members, each elected for a period of three years and each representing an electoral district. Under the Electoral Districts Act of 1958, the number of members and the number of electorates were increased from 75 to 78, and the increase became effective as from the elections held on 28th May, 1960. This Act divided the State into three zones—metropolitan, provincial cities and country, having 28, 12 and 38 electoral districts respectively. A commission of three appointed by the Governor-in-Council completely distributed the prescribed zones into the number of electoral districts on a quota basis. The Commissioners were empowered to adopt a margin of allowance to be used whenever necessary, but the quota was not to be departed from to a greater extent than one-fifth more or one-fifth less; and they were to take into consideration community or diversity of interest, means of communication, physical features, the boundaries of areas of Local Authorities and divisions of Local Authorities and probable future movements of population. The boundaries of the electoral districts were to conform as far as possible to the boundaries of the areas and divisions of areas of Local Authorities.

Any person qualified to be enrolled for any electoral district is qualified for election to the Legislative Assembly. Any person not under the age of twenty-one years, who is a natural-born or naturalized British subject with continuous residence within Australia for six months, in Queensland for three months, and in an electoral district for one month prior to making a claim for enrolment, is qualified to enrol as an elector. The classes of persons not qualified to be elected are similar to those for other Australian Parliaments (*see p. 66*).

Since the establishment of responsible government in Queensland, there have been 35 complete Parliaments, the last of which was dissolved on 13th April, 1960. Opinions differ regarding the opening date of the first Queensland Parliament. According to the Votes

and Proceedings of the Legislative Assembly, the House met for the first time on 22nd May, 1860, when the members were sworn and the Speaker elected. The Governor, however, was unable to be present on that date, but he duly attended on 29th May, 1860, and delivered the Opening Address. The thirty-sixth Parliament was opened on 23rd August, 1960.

The election of 1907 was the first State election in Queensland at which women voted, the right being conferred under the Elections Acts Amendment Act 1905. At the elections held in May, 1915, the principle of compulsory voting was introduced for the first time in Australia. A system of optional preferential voting operated for many years but, in 1942, this was abolished and that of election of the candidate obtaining the highest number of votes in the electorate now operates.

6. The Parliament of South Australia.—In this State, there is a Legislative Council composed of twenty members and a House of Assembly with 39 members, both Chambers being elective. For the Legislative Council, the State is divided into five districts each returning four members. The term of office is six years, two members for each district retiring at the end of every three years. Thirty-nine districts return one member each to the House of Assembly; prior to 1938 there were 46 members representing nineteen districts. The term of office for the House of Assembly is three years.

Any person who is at least thirty years of age, is a British subject or legally made a denizen of the State and who has resided in the State for at least three years is qualified for membership of the Legislative Council. Qualifications for the Council franchise are that a person is at least twenty-one years of age, a British subject, an inhabitant of the State with residence for at least six months prior to the registration of the electoral claim, and that he or she has had certain war service, or possesses property qualifications relating to ownership, leaseholding, or inhabitant occupancy. Any person qualified and entitled to be registered as an elector for the House of Assembly is qualified and entitled for election as a member of that House. Qualifications for enrolment as an elector for the House of Assembly are that a person is at least twenty-one years of age, is a British subject, and has lived continuously in Australia for at least six months, in the State for three months and in an Assembly subdivision for one month immediately preceding the date of claim for enrolment. Provisions in the Constitution for disqualification from membership or from the franchise in respect of either House follow the usual pattern for Australia (*see* p. 66).

Since the inauguration of responsible government in South Australia, there have been 35 complete Parliaments, the first of which was opened on 22nd April, 1857. The thirty-fifth Parliament closed on 3rd March, 1959, and the thirty-sixth was opened on 9th June, 1959. The duration of the twenty-eighth Parliament was extended from three to five years by the provisions of the Constitution (Quinquennial Parliament) Act 1933, but this Act was repealed by the Constitution Act Amendment Act (No. 2) 1939, and the three-year term was reverted to.

South Australia was the first of the States to grant women's suffrage (under the Constitution Amendment Act 1894), the franchise being exercised by women for the first time at the Legislative Assembly election on 25th April, 1896. Compulsory voting for the House of Assembly was first observed at the 1944 election. A system of preferential voting is in operation.

7. The Parliament of Western Australia.—In this State, both Chambers are elective. For the Legislative Council, there are 30 members, each of the ten provinces returning three members. One member for each province retires at the end of every two years. At each biennial election, the member elected holds office for a term of six years, and automatically retires at the end of that period. The Legislative Assembly is composed of 50 members, one member being returned by each electoral district. Members of the Legislative Assembly are elected for three years.

Qualifications required for membership of the Legislative Council are the age of at least 30 years, residence in Western Australia for two years and being a natural-born British subject or naturalized for five years prior to election and resident in the State for that period. Qualifications required for Council franchise are the age of at least 21 years, residence in Western Australia for six months, being a natural-born British subject or naturalized for twelve months, and certain property qualifications relating to freehold, leasehold, or householder occupancy. Qualifications required for membership of the Legislative Assembly are the age of at least 21 years, residence in Western Australia for twelve months,

and being a natural-born British subject or naturalized for five years and resident in the State for two years prior to election. Qualifications required for the franchise are the age of at least 21 years, residence in Western Australia for six months and in an electoral district continuously for three months, and being a natural-born or naturalized British subject. Persons may be disqualified as members or voters for reasons similar to those for other Australian Parliaments (*see* p. 66).

Since the establishment of responsible government in Western Australia, there have been twenty-two complete Parliaments, the first of which was opened on 30th December, 1890. The twenty-second Parliament dissolved on 31st January, 1959, and the twenty-third was opened on 30th June, 1959. A preferential system of voting is in use in Western Australia.

Women's suffrage was granted by the Electoral Act of 1899. The first woman member to be elected to an Australian Parliament was returned at the 1921 election in this State. Voting for the Legislative Assembly was made compulsory in December, 1936, the first elections for which the provision was in force being those held on 18th March, 1939.

8. The Parliament of Tasmania.—In Tasmania, there are two legislative Chambers, the Legislative Council and the House of Assembly, both bodies being elective. In accordance with the Constitution Act 1946, the Council now consists of nineteen members, elected for six years and returned from nineteen divisions. Three members retire annually (except in the 1953 elections and in each sixth successive year thereafter, when four retire) and the Council cannot be dissolved as a whole. There are five House of Assembly divisions, corresponding to the Commonwealth electoral divisions, each returning seven members elected under a system of proportional representation which first came into force at the 1909 elections. By the Constitution Act 1936, the life of the Assembly was extended from three to five years.

Persons qualified for election to the Legislative Council must be at least 25 years of age and qualified to vote as Council electors, have been resident in Tasmania for a period of five years at any one time or at least two years immediately preceding the election, and be natural-born subjects of the Queen or naturalized for at least five years. An elector for the Council must be at least twenty-one years of age, a natural-born or naturalized subject and resident in Tasmania for a period of twelve months, with certain freehold or occupancy property qualifications, or the spouse of a person qualified to vote as the owner or occupier of property, or with certain academic, professional, defence force, or war service qualifications. For the House of Assembly, members must be at least twenty-one years of age, have been resident in Tasmania for a period of five years at any one time or for a period of two years immediately preceding the election, and be natural-born subjects of the Queen or naturalized for a period of five years. Electors must be at least twenty-one years of age, natural-born or naturalized subjects and resident in Tasmania for a period of six months continuously. Reasons for disqualification of members or voters are similar to those for other Australian Parliaments (*see* p. 66).

The first Tasmanian Parliament opened on 2nd December, 1856, and closed on 8th May, 1861. There have been 32 complete Parliaments since the inauguration of responsible government, the thirty-second having been dissolved on 9th April, 1959. The thirty-third Parliament was opened on 2nd June, 1959.

The suffrage was granted to women under the Constitution Amendment Act 1903 and compulsory voting for both Houses came into force on the passing of the Electoral Act in 1928. The system of voting is proportional representation by single transferable vote.

9. Superannuation Funds of the Parliament of the Commonwealth and of the Australian States.—(i) *General.* In Official Year Book No. 38, there is a conspectus of Superannuation Funds of the Parliaments of the Commonwealth and of the five States (New South Wales, Victoria, Queensland, South Australia and Western Australia) in which such schemes operate (*see* pp. 91–9). This conspectus summarizes the main features of each fund as at 30th June, 1949. Although the schemes are still essentially as described in the conspectus, there have been several subsequent amending Acts providing for extensions or increases in benefits, increased contributions, etc., in some of the schemes. In December, 1955, the Tasmanian Parliament passed an Act, the Parliamentary Retiring Allowances Act, No. 59 of 1955, details of which may be found in earlier issues of the Year Book (*see* No. 44, p. 72). The Commonwealth Retiring Allowances Act 1952 provided *inter alia* for additional benefit of £1,200 a year, subject to certain conditions, to a retired Prime Minister, and in case of his death, additional benefit of £750 a year to his widow.

(ii) *Finances.* For particulars of the financial operations of these schemes *see* Chapter XX.—Private Finance.

§ 3. Administration and Legislation.

1. **The Commonwealth Parliaments.**—The first Parliament of the Commonwealth was convened by proclamation dated 29th April, 1901, by His Excellency the Marquis of Linlithgow, then Earl of Hopetoun, Governor-General. It was opened on 9th May, 1901, by H.R.H. the Duke of Cornwall and York, who had been sent to Australia for that purpose by His Majesty the King. The Rt. Hon. Sir Edmund Barton, G.C.M.G., K.C., was Prime Minister.

The following table shows the number and duration of Parliaments since Federation:—

COMMONWEALTH PARLIAMENTS.

Number of Parliament.	Date of Opening.	Date of Dissolution.
First	9th May, 1901	23rd November, 1903
Second	2nd March, 1904	5th November, 1906
Third	20th February, 1907	19th February, 1910
Fourth	1st July, 1910	23rd April, 1913
Fifth	9th July, 1913	30th July, 1914(a)
Sixth	8th October, 1914	26th March, 1917
Seventh	14th June, 1917	3rd November, 1919
Eighth	26th February, 1920	6th November, 1922
Ninth	28th February, 1923	3rd October, 1925
Tenth	13th January, 1926	9th October, 1928
Eleventh	9th February, 1929	16th September, 1929
Twelfth	20th November, 1929	27th November, 1931
Thirteenth	17th February, 1932	7th August, 1934
Fourteenth	23rd October, 1934	21st September, 1937
Fifteenth	30th November, 1937	27th August, 1940
Sixteenth	20th November, 1940	7th July, 1943
Seventeenth	23rd September, 1943	16th August, 1946
Eighteenth	6th November, 1946	31st October, 1949
Nineteenth	22nd February, 1950	19th March, 1951(a)
Twentieth	12th June, 1951	21st April, 1954
Twenty-first	4th August, 1954	4th November, 1955
Twenty-second	15th February, 1956	14th October, 1958
Twenty-third	17th February, 1959	

(a) A dissolution of both the Senate and the House of Representatives was granted by the Governor-General, acting on the advice of the Cabinet and under section 57 of the Constitution.

2. **Governors-General and Commonwealth Ministries.**—(i) *Governors-General.* The following statement shows the names of the Governors-General since the inception of the Commonwealth:—

GOVERNORS-GENERAL.

Rt. Hon. JOHN ADRIAN LOUIS, EARL OF HOPETOUN (afterwards MARQUIS OF LINLITHGOW) P.C., K.T., G.C.M.G., G.C.V.O. From 1st January, 1901, to 9th January, 1903.

Rt. Hon. HALLAM, BARON TENNYSON, P.C., G.C.M.G. From 17th July, 1902 to 9th January, 1903, (Acting).

Rt. Hon. HALLAM, BARON TENNYSON, P.C., G.C.M.G. From 9th January, 1903, to 21st January, 1904.

Rt. Hon. HENRY STAFFORD, BARON NORTHCOTE, P.C., G.C.M.G., G.C.I.E., C.B. From 21st January, 1904, to 9th September, 1908.

Rt. Hon. WILLIAM HUMBLE, EARL OF DUDLEY, P.C., G.C.B., G.C.M.G., G.C.V.O. From 9th September, 1908, to 31st July, 1911.

Rt. Hon. THOMAS, BARON DENMAN, P.C., G.C.M.G., K.C.V.O. From 31st July, 1911, to 18th May, 1914.

Rt. Hon. SIR RONALD CRAUFURD MUNRO FERGUSON (afterwards VISCOUNT NOVAR OF RAITH), G.C.M.G. From 18th May, 1914, to 6th October, 1920.

Rt. Hon. HENRY WILLIAM, BARON FORSTER OF LEPE, P.C., G.C.M.G. From 6th October, 1920, to 8th October, 1925.

Rt. Hon. JOHN LAWRENCE, BARON STONEHAVEN, P.C., G.C.M.G., D.S.O. From 8th October, 1925, to 22nd January, 1931.

Rt. Hon. SIR ISAAC ALFRED ISAACS, G.C.B., G.C.M.G. From 22nd January, 1931, to 23rd January, 1936.

General the Rt. Hon. ALEXANDER GORE ARKWRIGHT, BARON GOWRIE, V.C., P.C., G.C.M.G., C.B., D.S.O., K.G.St.J. From 23rd January, 1936, to 30th January, 1945.

His Royal Highness PRINCE HENRY WILLIAM FREDERICK ALBERT, DUKE OF GLOUCESTER, EARL OF ULSTER AND BARON CULLODEN, K.G., K.T., K.P., P.C., G.C.B., G.C.M.G., G.C.V.O., General in the Army, Air Chief Marshal in the Royal Air Force, One of His Majesty's Personal Aides-de-Camp. From 30th January, 1945 to 11th March, 1947.

Rt. Hon. SIR WILLIAM JOHN MCKELL, G.C.M.G. From 11th March, 1947 to 8th May, 1953.

Field-Marshal SIR WILLIAM JOSEPH SLIM (afterwards VISCOUNT SLIM OF YARRALUMLA), K.G., G.C.B. G.C.M.G., G.C.V.O., G.B.E., D.S.O., M.C., K.St.J. From 8th May, 1953, to 2nd February 1960.

Rt. Hon. WILLIAM SHEPHERD, VISCOUNT DUNROSSIL, P.C., G.C.M.G., M.C., K.St.J., Q.C. From 2nd February, 1960, to 3rd February, 1961.

(ii) *Administrators.* In addition to the holders of the office of Governor-General listed above, certain persons have, from time to time, been appointed as Administrator of the Government of the Commonwealth during the absence from Australia or illness of the Governor-General. The following is a list of such appointments.

	Term of Office.
Rt. Hon. Frederic John Napier, Baron Chelmsford, K.C.M.G.	21st December, 1909, to 27th January, 1910
Lieut.-Colonel the Rt. Hon. Arthur Herbert Tennyson, Baron Somers, K.C.M.G., D.S.O., M.C.	3rd October, 1930, to 22nd January, 1931
Captain the Rt. Hon. William Charles Arcedeckne Vanneck, Baron Huntingfield, K.C.M.G., K.St.J.	29th March, 1938, to 24th September, 1938
Major-General Sir Winston Joseph Dugan, G.C.M.G., C.B., D.S.O.	5th September, 1944, to 30th January, 1945
Major-General Sir Winston Joseph Dugan, G.C.M.G., C.B., D.S.O.	18th January, 1947, to 11th March, 1947
General* Sir John Northcott, K.C.M.G., C.B., M.V.O.†	19th July, 1951, to 14th December, 1951
General* Sir John Northcott, K.C.M.G., K.C.V.O., C.B.	30th July, 1956, to 22nd October, 1956
General Sir Reginald Alexander Dallas Brooks, K.C.B., K.C.M.G., K.C.V.O., D.S.O. K.St.J.	8th January, 1959, to 15th January, 1959
General Sir Reginald Alexander Dallas Brooks, K.C.B., K.C.M.G., K.C.V.O., D.S.O., K.St.J.	from 3rd February, 1961.

(iii) *Commonwealth Ministries.* (a) *Names and Tenure of Office, 1901 to 1960.* The following list shows the name of each Commonwealth Ministry to hold office since 1st January, 1901, and the limits of its term of office.

COMMONWEALTH MINISTRIES.

- (i) BARTON MINISTRY, 1st January, 1901, to 24th September, 1903.
- (ii) DEAKIN MINISTRY, 24th September, 1903, to 27th April, 1904.
- (iii) WATSON MINISTRY, 27th April, 1904, to 17th August, 1904.
- (iv) REID-MCLEAN MINISTRY, 18th August, 1904, to 5th July, 1905.
- (v) DEAKIN MINISTRY, 5th July, 1905, to 13th November, 1908.
- (vi) FISHER MINISTRY, 13th November, 1908, to 1st June, 1909.
- (vii) DEAKIN MINISTRY, 2nd June, 1909, to 29th April, 1910.
- (viii) FISHER MINISTRY, 29th April, 1910, to 24th June, 1913.
- (ix) COOK MINISTRY, 24th June, 1913, to 17th September, 1914.
- (x) FISHER MINISTRY, 17th September, 1914, to 27th October, 1915
- (xi) HUGHES MINISTRY, 27th October, 1915, to 14th November 1916.
- (xii) HUGHES MINISTRY, 14th November, 1916, to 17th February, 1917.
- (xiii) HUGHES MINISTRY, 17th February, 1917, to 10th January, 1918
- (xiv) HUGHES MINISTRY, 10th January, 1918, to 9th February, 1923.
- (xv) BRUCE-PAGE MINISTRY, 9th February, 1923, to 22nd October, 1929.
- (xvi) SCULLIN MINISTRY, 22nd October, 1929, to 6th January, 1932.
- (xvii) LYONS MINISTRY, 6th January, 1932, to 7th November, 1938.
- (xviii) LYONS MINISTRY, 7th November, 1938, to 7th April, 1939.
- (xix) PAGE MINISTRY, 7th April, 1939, to 26th April, 1939.
- (xx) MENZIES MINISTRY, 26th April, 1939, to 14th March, 1940.
- (xxi) MENZIES MINISTRY, 14th March, 1940, to 28th October, 1940.
- (xxii) MENZIES MINISTRY, 28th October, 1940, to 29th August, 1941.
- (xxiii) FADDEN MINISTRY, 29th August, 1941, to 7th October, 1941.

* Lieutenant-General Sir John Northcott was granted honorary rank of General while administering the Government of the Commonwealth.

† K.C.V.O., 1954.

COMMONWEALTH MINISTRIES—*continued.*

- (xxiv) CURTIN MINISTRY, 7th October, 1941, to 21st September, 1943.
- (xxv) CURTIN MINISTRY, 21st September, 1943, to 6th July, 1945.
- (xxvi) FORDE MINISTRY, 6th July, 1945, to 13th July, 1945.
- (xxvii) CHIFLEY MINISTRY, 13th July, 1945, to 1st November, 1946.
- (xxviii) CHIFLEY MINISTRY, 1st November, 1946, to 19th December, 1949.
- (xxix) MENZIES MINISTRY, 19th December, 1949, to 11th May, 1951.
- (xxx) MENZIES MINISTRY, 11th May, 1951, to 11th January, 1956.
- (xxxi) MENZIES MINISTRY, 11th January, 1956, to 10th December, 1958.
- (xxxii) MENZIES MINISTRY, 10th December, 1958.

(b) *Names of Holders of Ministerial Office, to 31st December, 1960.* In Official Year Book No. 17, 1924, there appeared the names of each Ministry up to the Bruce-Page Ministry (9th February, 1923, to 22nd October, 1929), together with the names of the successive holders of portfolios therein, and issue No. 39 contained a list, commencing with the Bruce-Page Ministry, which covered the period between the date on which it assumed power, 9th February, 1923, and 31st July, 1951, showing the names of all persons who held office in each Ministry during that period.

This issue shows only particulars of the latest Menzies Ministry, as constituted on 31st December, 1960. For any subsequent changes *see* the Appendix to this volume.

MENZIES MINISTRY—from 10th December, 1958.

(*Portfolios as from 29th December, 1960.*)

(The State in which each Minister's electorate is situated is shown in parentheses.)

***Prime Minister and Minister for External Affairs—**

THE RT. HON. R. G. MENZIES,
C.H., Q.C., M.P. (Vic.).

***Minister for Trade—**

THE RT. HON. J. McEWEN, M.P. (Vic.).

***Treasurer—**

THE RT. HON. H. E. HOLT, M.P. (Vic.).

***Vice-President of the Executive Council; and Minister for National Development—**

SENATOR THE HON. W. H. SPOONER,
M.M. (N.S.W.).

***Minister for Defence—**

THE HON. A. G. TOWNLEY, M.P. (Tas.).

***Minister for Territories—**

THE HON. P. M. C. HASLUCK, M.P.
(W.A.).

***Minister for Labour and National Service—**

THE HON. W. McMAHON, M.P.
(N.S.W.).

***Minister for Civil Aviation—**

SENATOR THE HON. S. D. PALTRIDGE,
M.P. (W.A.).

***Postmaster-General—**

THE HON. C. W. DAVIDSON, O.B.E.,
M.P. (Qld.).

***Minister for Immigration—**

THE HON. A. R. DOWNER, M.P. (S.A.).

***Attorney-General—**

THE HON. SIR GARFIELD BARWICK, Q.C.,
M.P. (N.S.W.).

***Minister for Primary Industry—**

THE HON. C. F. ADERMANN, M.P.
(Qld.).

Minister for Health and Minister-in-charge of C.S.I.R.O.—

THE HON. D. A. CAMERON, O.B.E.,
M.P. (Qld.).

Minister for the Army—

THE HON. J. O. CRAMER, M.P. (N.S.W.).

Minister for Repatriation—

THE HON. F. M. OSBORNE, D.S.C.,
V.R.D., M.P. (N.S.W.).

Minister for Social Services—

THE HON. H. S. ROBERTSON, M.P.
(N.S.W.).

Minister for Customs and Excise—

SENATOR THE HON. N. H. D. HENTY
(Tas.).

Minister for Supply—

THE HON. A. S. HULME, M.P. (Qld.).

Minister for the Interior; and Minister for Works—

THE HON. G. FREETH, M.P. (W.A.).

Minister for the Navy—

SENATOR THE HON. J. G. GORTON
(Vic.).

Minister for Shipping and Transport—

THE HON. H. F. OPPERMAN, O.B.E.,
M.P. (Vic.).

Minister for Air—

SENATOR THE HON. H. W. WADE (Vic.).

* Minister in the Cabinet.

(iv) *Commonwealth Ministers of State.* In Official Year Book No. 38, a statement was included showing the names of the Ministers of State who had administered the several Departments during the period 1st April, 1925, to 31st December, 1949 (pp. 74-79). This was in continuation of a similar statement covering the period from the inauguration of the Commonwealth Government to 1925 which appeared in Official Year Book No. 18.

3. **Governors and State Ministers.**—The names of the Governors and members of the Ministries in each State in December, 1960, are shown in the following statement. (Changes since December, 1960, are shown in the Appendix to this volume.)

NEW SOUTH WALES.

Governor—LIEUT.-GENERAL SIR ERIC WINSLOW WOODWARD, K.C.M.G., C.B., C.B.E., D.S.O., K.St.J.

Ministry (from 31st May, 1960).

Premier—

THE HON. R. J. HEFFRON, M.L.A.

Deputy Premier, Treasurer and Minister for Agriculture—

THE HON. J. B. RENSHAW, M.L.A.

Attorney-General and Vice-President of the Executive Council—

THE HON. R. R. DOWNING, M.L.C.

Chief Secretary, and Minister for Tourist Activities—

THE HON. C. A. KELLY, M.L.A.

Minister for Local Government and Minister for Highways—

THE HON. P. D. HILLS, M.L.A.

Minister for Health—

THE HON. W. F. SHEAHAN, Q.C., M.L.A.

Minister for Child Welfare and Minister for Social Welfare—

THE HON. F. H. HAWKINS, M.L.A.

Minister for Conservation—

THE HON. A. G. ENTICKNAP, M.L.A.

Minister for Housing and Minister for Co-operative Societies—

THE HON. A. LANDA, M.L.A.

Minister for Education—

THE HON. E. WETHERELL, M.L.A.

Minister for Labour and Industry—

THE HON. J. J. MALONEY, M.L.C.

Minister for Mines—

THE HON. J. B. SIMPSON, M.L.A.

Minister for Transport—

THE HON. J. M. A. MCMAHON, M.L.A.

Minister for Public Works—

THE HON. P. N. RYAN, M.L.A.

Minister for Justice—

THE HON. N. J. MANNIX, M.L.A.

Minister for Lands—

THE HON. K. C. COMPTON, M.L.A.

VICTORIA.

Governor—GENERAL SIR REGINALD ALEXANDER DALLAS BROOKS, K.C.B., K.C.M.G., K.C.V.O., D.S.O., K.St.J.

Ministry (from 7th June, 1955).

(Portfolios as from 8th July, 1958.)

Premier, Treasurer and Minister for Conservation—

THE HON. H. E. BOLTE, M.P.

Chief Secretary and Attorney-General—

THE HON. A. G. RYLAH, E.D., M.P.

Minister of Transport and a Vice-President of the Board of Land and Works—

THE HON. SIR ARTHUR WARNER, M.L.C.

Minister of Agriculture and a Vice-President of the Board of Land and Works—

THE HON. G. L. CHANDLER, C.M.G., M.L.C.

Commissioner of Public Works and a Vice-President of the Board of Land and Works—

THE HON. SIR THOMAS MALTBY, E.D., M.P.

Minister of Health—

THE HON. E. P. CAMERON, M.L.C.

Minister of Water Supply and Minister of Mines—

THE HON. W. J. MIBUS, M.P.

Minister of Education—

THE HON. J. S. BLOOMFIELD, M.P.

Minister of Housing and Minister of Immigration—

THE HON. H. R. PETTY, M.P.

Commissioner of Crown Lands and Survey, Minister of Soldier Settlement and President of the Board of Land and Works—

THE HON. K. H. TURNBULL, M.P.

Minister of Labour and Industry and Minister of Electrical Undertakings—

THE HON. G. O. REID, M.P.

Minister for Local Government—

THE HON. M. V. PORTER, M.P.

Minister of Forests and Minister of State Development—

THE HON. A. J. FRASER, M.C., M.P.

Minister without Portfolio—

THE HON. L. H. S. THOMPSON, M.L.C.

GOVERNORS AND STATE MINISTERS—*continued.*

QUEENSLAND.

Governor—COLONEL SIR HENRY ABEL SMITH, K.C.V.O., D.S.O.

Ministry (from 16th June, 1960).

Premier and Chief Secretary; and Vice-President of the Executive Council—
THE HON. G. F. R. NICKLIN, M.M., M.L.A.

Minister for Labour and Industry—
THE HON. K. J. MORRIS, M.L.A.

Minister for Education and Migration—
THE HON. J. C. A. PIZZHEY, M.L.A.

Minister for Justice and Attorney-General—
THE HON. A. W. MUNRO, M.L.A.

Treasurer and Minister for Housing—
THE HON. T. A. HILEY, M.L.A.

Minister for Development, Mines, Main Roads and Electricity—
THE HON. E. EVANS, M.L.A.

Minister for Agriculture and Forestry—
THE HON. O. O. MADSEN, M.L.A.

Minister for Health and Home Affairs—
THE HON. H. W. NOBLE, M.L.A.

Minister for Transport—
THE HON. G. W. W. CHALK, M.L.A.

Minister for Public Works and Local Government—
THE HON. L. H. S. ROBERTS, M.L.A.

Minister for Public Lands and Irrigation—
THE HON. A. R. FLETCHER, M.L.A.

SOUTH AUSTRALIA.

Governor—LIEUT.-GENERAL SIR EDRIC MONTAGU BASTYAN, K.B.E., C.B.

*Ministry (from 15th May, 1944).**(Portfolios as from 14th May, 1958.)*

Premier, Treasurer and Minister of Immigration—
THE HON. SIR THOMAS PLAYFORD, G.C.M.G., M.P.

Chief Secretary, Minister of Health and Minister of Mines—
THE HON. SIR LYLE McEWIN, K.B.E., M.L.C.

Attorney-General and Minister of Labour and Industry—
THE HON. C. D. ROWE, M.L.C.

Minister of Lands, Minister of Repatriation and Minister of Irrigation—
THE HON. SIR CECIL HINCKS, M.P.

Minister of Works and Minister of Marine—
THE HON. G. G. PEARSON, M.P.

Minister of Agriculture and Minister of Forests—
THE HON. D. N. BROOKMAN, M.P.

Minister of Education—
THE HON. B. PATTINSON, M.P.

Minister of Local Government, Minister of Roads and Minister of Railways—
THE HON. N. L. JUDE, M.L.C.

WESTERN AUSTRALIA.

Governor—LIEUT.-GENERAL SIR CHARLES GAIRDNER, K.C.M.G., K.C.V.O., K.B.E., C.B.
Ministry (from 2nd April, 1959).

Premier, Treasurer and Minister for Tourists—
THE HON. D. BRAND, M.L.A.

Deputy Premier, Minister for Education and Electricity and Attorney-General—
THE HON. A. F. WATTS, C.M.G., M.L.A.

Minister for Industrial Development, Railways and the North West—
THE HON. C. W. M. COURT, O.B.E., M.L.A.

Minister for Agriculture—
THE HON. C. D. NALDER, M.L.A.

Minister for Works and Water Supplies—
THE HON. G. P. WILD, M.B.E., M.L.A.

Minister for Mines and Housing—
THE HON. A. F. GRIFFITH, M.L.C.

Minister for Lands, Forests and Immigration—
THE HON. W. S. BOVELL, M.L.A.

Minister for Transport, Police, Labour and Native Welfare—
THE HON. C. C. PERKINS, M.L.A.

Chief Secretary and Minister for Health and Fisheries—
THE HON. R. HUTCHINSON, D.F.C., M.L.A.

Minister for Local Government, Town Planning and Child Welfare—
THE HON. L. A. LOGAN, M.L.C.

GOVERNORS AND STATE MINISTERS—*continued.*

TASMANIA.

Governor—THE RT. HON. THOMAS GODFREY POLSON, BARON ROWALLAN K.T., K.B.E., M.C., T.D.

Ministry (from 12th May, 1959).

<i>Premier, Treasurer and Minister for Mines—</i>	<i>Chief Secretary and Minister administering the Department of Health Services—</i>
THE HON. E. E. REECE, M.H.A.	THE HON. J. F. GAHA, M.H.A.
<i>Deputy Premier and Attorney-General—</i>	<i>Minister for Forests, Tourists and Immigration—</i>
THE HON. R. F. FAGAN, M.H.A.	THE HON. A. C. ATKINS, M.H.A.
<i>Minister for Agriculture—</i>	<i>Minister for Transport—</i>
THE HON. J. J. DWYER, V.C., M.H.A.	THE HON. J. B. CONNOLLY, M.L.C.
<i>Minister for Lands and Works—</i>	<i>Minister for Housing, Licensing and Police—</i>
THE HON. D. A. CASHION, M.H.A.	THE HON. J. L. MADDEN, M.H.A.
<i>Minister for Education—</i>	
THE HON. W. A. NEILSON, M.H.A.	

4. *Leaders of the Opposition, Commonwealth and State Parliaments.*—The Leader of the Opposition plays an important part in the Party system of government which operates in the Australian Parliaments. The following list gives the names of the holders of this position in each of the Parliaments in December, 1960.

Leader of the Opposition, Commonwealth and State Parliaments—

Commonwealth—The Hon. A. A. Calwell, M.P.

New South Wales—R. W. Askin, M.L.A.

Victoria—The Hon. C. P. Stoneham, M.P.

Queensland—The Hon. J. E. Duggan, M.L.A.

South Australia—F. H. Walsh, M.P.

Western Australia—The Hon. A. R. G. Hawke, M.L.A.

Tasmania—The Hon. W. A. Bethune, M.H.A.

5. *The Course of Legislation.*—The actual legislation by the Commonwealth Parliament up to the end of 1959 is indicated in alphabetical order in "The Acts of the Parliament of The Commonwealth of Australia passed during the year 1959, in the First Session of the Twenty-third Parliament of the Commonwealth, with Appendix, Tables and Index".

A chronological table of Acts passed from 1901 to 1959 showing how they are affected by subsequent legislation or lapse of time is also given, and, further, a table of Commonwealth legislation passed from 1901 to 1959 in relation to the several provisions of the Constitution, is furnished. Reference should be made to these for complete information.

6. *Legislation during 1959.*—The following paragraphs present a selection from the legislative enactments of the Commonwealth Parliament during the year 1959. The Acts included have been selected as the more important new measures and amending measures enacted during the year. The selection is somewhat arbitrary, however, because of the task of determining, in view of the limitations on space that might reasonably be allotted, the relative importance of the acts passed. Certain principles regulating the choice of acts have nevertheless been generally observed. Ordinary appropriation and loan acts are excluded, as are also acts relating to less important changes in existing forms of taxation, in superannuation and pension schemes, and in workers' compensation. Acts providing for minor amendments to existing statutes and continuance acts are similarly excluded.

The total enactments of the Commonwealth Parliament for a number of years at fairly even intervals since 1901 show a general increase. About 17 Acts were passed in 1901, 36 in 1914, 38 in 1927, 87 in 1939 and 104 in 1959.

In Official Year Book No. 40 (*see pp. 66–70*), and previous Year Books, similar information was published for the principal legislative enactments of State Parliaments.

Commonwealth Legislation Passed in 1959.—Airports (Business Concessions) Act 1959 (No. 89 of 1959). Makes it an offence to sell, for delivery within an airport owned or leased by the Commonwealth, or supply, any goods or services, or to carry on or solicit any business, or to erect, display or distribute, or communicate by sound, any advertisement or public notice unless authorized so to do by the Minister. Provisions are made for the Minister's power to grant leases and licences in respect of airport land and to grant authorities on such terms and conditions as he thinks fit, for the inspection of premises, for the periods of leases, for the saving of existing leases and licences, for the application of section 57 of the Lands Acquisition Act 1955-1957 (relating to warrants to obtain possession of land), for the evidentiary value of certain certificates signed by the Minister, for the Minister's power to delegate, and for the making of regulations.

Australian National Airlines Act 1959 (No. 3 of 1959). Amends the Australian National Airlines Act 1945-1958 by repealing sections 8-15 and inserting new sections relating to the term of office held by Commissioners, the remuneration of Commissioners, the absence of Commissioners, the dismissal of Commissioners, the resignation of Commissioners, the vacation of office by Commissioners, and meetings of the Commission. It increases the number of Commissioners from five to six.

The maximum value of land that the Commission may purchase without the consent of the Minister is increased from £5,000 to £20,000 and it may now enter into a contract without the approval of the Minister for the supply of aircraft, equipment and materials to the Commission for a consideration of up to £50,000.

The provision whereby the Commission was deemed to be a common carrier (section 24 of the 1945-1958 Act) is repealed.

Sections 33-36 of the 1945-1958 Act (relating to the lodging of uninvested moneys in a bank, the application of moneys, the keeping of accounts, and auditing) are repealed and new sections relating to these matters are inserted. The provisions of section 38 (1) and (2) (relating to the calculation of the profits of the Commission) and section 40 (relating to the annual report) are amended.

Parts III., IV. and V. (which relate respectively to the compulsory acquisition of aircraft and other property, to limitations upon the power of the licensing authority to issue airline licences to Territorial air transport services other than the Commission, and to compensation for loss of property acquired) are repealed. Section 64 (whereunder notices of occurrences of causes of action and of the plaintiff's intention to commence an action were required) is repealed and the provisions of sections 63 and 66 are amended so that the limitation period in which action must be brought against the Commission is now two years, and the amount of damages recoverable by a plaintiff in respect of a personal injury or death is £7,500. But this provision does not apply to the Commission's liability under the Civil Aviation (Damage by Aircraft) Act 1958 or to the Civil Aviation (Carriers' Liability) Act 1959.

Australian Universities Commission Act 1959 (No. 30 of 1959). Establishes the Australian Universities Commission and provides for the appointment of its Chairman and members by the Governor-General, for the appointment by the Minister of acting members, for the remuneration, leave of absence, dismissal, resignation and vacation of office of members, for the meetings, functions, and reports of the Commission, for the appointment by the Minister at the request of the Commission of a Committee to assist the Commission, and for the rights of an officer of the Public Service appointed as Chairman.

Banking Act 1959 (No. 6 of 1959). Repeals the Banking Act 1945-1953, but provides for the continuance of authorities under Section 8 of that Act which were in force immediately before the commencement of Part II. of the Act.

The Act makes it an offence for a person other than a body corporate which has an authority granted under the Act by the Governor-General to carry on any banking business in Australia.

Provisions are made relating to the documents accompanying an application to the Treasurer for an authority and to the granting by the Treasurer of an order published in the *Gazette* exempting a person from compliance with such of the provisions of the Act as are specified in the order, where the person desires to carry on any banking business in Australia but does not desire to carry on the general business of banking.

The Act provides that it is the duty of the Reserve Bank to exercise its powers and functions under the Act for the protection of the depositors of the several banks. It may require a bank to supply it with such information relating to that bank's financial stability as it specifies in a written notice.

Provisions are made for the assumption by the Reserve Bank of control of banks unable to meet their obligations.

The Act also provides for the Reserve Bank's power, by notice in writing, to require a bank to transfer to it an amount of Sterling equivalent to such portion as is specified in the notice of that bank's excess receipts of foreign currency; for adjustment in the amount of Sterling where foreign currency is not freely convertible into Sterling; and for the sale of foreign currency by the Reserve Bank.

Where the Reserve Bank is satisfied that it is necessary or expedient to do so in the public interest, it may determine the policy in relation to advances to be followed by all trading banks including the Commonwealth Development Bank and all Savings banks, and may give directions as to the classes of purposes for which advances may or may not be made.

Provisions are also made for the making of regulations in relation to Savings banks with respect to the investment of their funds, the banks with or to which they may deposit or lend money; the classes of persons from whom they may not accept deposits; the classes of persons who may keep cheque accounts; the maximum aggregate amount of £2,000,000 plus 2½ per cent. (including interest credited to the accounts of depositors) that a savings bank may have on deposit in Australia with trading banks; and for the non-application of the whole or part of the regulations to a specified savings bank.

Savings banks must, at intervals of not more than three months, inform the Reserve Bank of their policies in relation to loans and investments including, in particular, their policies in relation to loans for housing purposes.

Provisions are made for the making of regulations by the Governor-General (where he is satisfied that it is expedient to do so for the protection of the currency or of the public credit of the Commonwealth, or in order to conserve, in the national interest, the foreign exchange resources of the Commonwealth) in relation to the buying, borrowing, selling, lending, or exchanging of foreign currency, including the fixing of rates of exchange; to a transaction involving foreign currency or the sending out of Australia of gold or securities; and to the prohibition of the importation or exportation of goods except under licence.

Provisions are made in Part IV. of the Act in relation to the transfer of gold out of Australia; to the compulsory delivery of gold to the Reserve Bank; to the vesting of an absolute title to the gold in the Reserve Bank; to the payment for the gold; and to limitations upon the working of gold, upon the purchase of gold, and upon the sale of gold to persons other than the Reserve Bank.

The Reserve Bank may with the approval of the Treasurer make regulations in relation to the control of interest rates payable to or by banks; to rates of discount; and to the non-payability of interest.

The Act also provides for the preparation by banks of balance sheets and statements in accordance with the forms set out in the Second Schedule to the Act.

Banks specified in the First Schedule to the Act are not, without the prior consent of the Treasurer, to enter into any agreement or arrangement for any sale or disposal of their business by amalgamation or otherwise, or for the carrying on of business in partnership with another bank, nor to effect a reconstruction of the bank.

Where a bank is convicted of an offence against the Act or the regulations, a Full Court of the High Court may, upon application by the Attorney-General on motion, direct compliance by the bank, within a period specified by the Court, with the provisions with which the bank has failed to comply. In default of compliance by the bank within the specified period, the High Court may authorize the Reserve Bank to assume control of and carry on the business of that bank.

The Act also makes provisions in relation to the offence of misusing the word "bank", "banker", or "banking" or any word of like import; to the misuse of the words "Savings Bank" or any words of a like import; to the specification by the Treasurer of bank holidays; to the application of unclaimed moneys; to the requirement of the Treasurer's consent in writing to the institution of any prosecution of an offence against the Act or the regulations, or the consent of an authorized delegate of the Treasurer in the case of summary prosecutions brought under Part IV. of the Act or brought under regulation made under section 39 of the Act; to arrests and the granting of bail; and to the Governor-General's power to make regulations.

Banking (Transitional Provisions) Act 1959 (No. 7 of 1959). Provides—

- (a) for the continuance in office of the members of the Commonwealth Bank Board appointed under section 13 (1) (a) of the Commonwealth Bank Act 1945–1953 as members of the Reserve Bank Board subject to the Reserve Bank Act 1959;
- (b) that the Governor and Deputy Governor of the Commonwealth Bank of Australia shall continue to hold office as Governor and Deputy Governor of the Reserve Bank of Australia;
- (c) for the continuance of the Note Issue Department of the Commonwealth Bank as the Note Issue Department of the Reserve Bank;
- (d) for the continuance of the Rural Credits Department of the Commonwealth Bank as the Rural Credits Department of the Reserve Bank.
- (e) that the assets and liabilities of the Commonwealth Bank subsisting immediately before the coming into operation of Part II. of the Act and relating to the business which was carried on before that date by the Commonwealth Bank in its Mortgage Bank Department or Industrial Finance Department shall cease to be assets and liabilities of the Commonwealth Bank and shall become assets and liabilities of the Commonwealth Development Bank of Australia;
- (f) for the making of appointments under specified provisions of the Commonwealth Banks Act 1959 before the coming into operation of that Act (but until that time the appointments have no effect except to allow the persons appointed to take such action as is appropriate having regard to their offices to facilitate the coming into operation of the Commonwealth Banks Act 1959 and except to allow the payment of remuneration and the keeping of rights, seniority and privileges);
- (g) for payment by the Commonwealth Bank of the expenses necessary for the purpose of bringing the Commonwealth Banks Act 1959 into operation and for the reimbursement of the Reserve Bank for these expenses by the Commonwealth Banking Corporation after the commencement of the Commonwealth Banks Act 1959;
- (h) for the allocation by the Governor and the Managing Director of officers of the Commonwealth Bank Service to the Reserve Bank Service and to the Commonwealth Banking Corporation Service;
- (i) for the transfer, by the Governor and the Managing Director within three months after the commencement of the Commonwealth Banks Act 1959, of officers allocated to the Commonwealth Banking Corporation Service to the Reserve Bank Service and vice versa;
- (j) for the continuance of salaries and seniority of appointees from the Commonwealth Bank Service to the Reserve Bank Service and Commonwealth Banking Corporation Service, for their accrued rights, leave, and superannuation;
- (k) for the determination by the Commonwealth Bank of statutory reserve deposit ratios, until the commencement of Division 3 of Part II. of the Banking Act 1959;
- (l) for the Governor-General's power, if he is satisfied that it is expedient to do so for the protection of the currency or of the public credit of the Commonwealth, or in order to conserve in the national interest the foreign exchange resources of the Commonwealth, by instrument published in the *Gazette* to declare that notwithstanding the repeal effected by section 4 of the Banking Act 1959 the Banking (Foreign Exchange) Regulations in force under the Banking Act 1945–1953 shall continue in force as if they were made under the Banking Act 1959;
- (m) that a reference to the Reserve Bank of Australia in section 23c (1.) (c) (relating to an exemption from income tax of income derived from the sale of gold when the company mining the gold has purchased the gold from the Reserve Bank) shall be read as including a reference to the Commonwealth Bank of Australia; and

- (n) for the payment of unclaimed moneys to the Consolidated Revenue Fund, and for the application of section 69 (7.) of the Banking Act 1959 to unclaimed moneys paid to the Commonwealth under section 56 of the Banking Act 1945-1953.

Canned Fruit (Sales Promotion) Act 1959 (No. 83 of 1959). Establishes an Australian Canned Fruit Sales Promotion Committee as a body corporate and provides for the number and representational qualifications of its members, for the tenure of office, for the election of the Chairman by the Committee, for its meetings, for the deputies of members, for the remuneration of the members and deputies, for the appointment by the Committee of an Executive Sub-committee, for the membership and meetings of the sub-committee, and for the powers, functions, finances and audit of the Committee.

The function of the Committee is to promote the sale of canned fruit. Before carrying out any scheme or arrangement to promote the sale overseas of canned fruit, it is to consult with the Australian Canned Fruits Board and, where possible, act in collaboration with that Board.

Canned Fruits Export Control Act 1959 (No. 84 of 1959). Amends the Canned Fruits Export Control Act 1926-1956 in relation to the addition of a member to the Australian Canned Fruits Board appointed on the nomination of the Australian Canning Fruitgrowers Association to represent the growers of apricots, peaches and pears used in the production of canned fruit, to the tenure of his office, and to his deputy.

Canning-Fruit Charge Act 1959 (No. 81 of 1959). Imposes a charge on fruit delivered on or after 15th November, 1959 to a cannery and accepted as of canning quality, at the rate of 10s. a ton or such lesser rate as is prescribed from time to time, payable by the person by whom or on whose behalf, the fruit was delivered to the cannery. Before making regulations prescribing a lesser rate, the Governor-General is to consider any recommendation made by the Australian Canned Fruit Sales Promotion Committee constituted by the Canned Fruit (Sales Promotion) Act 1959. The Canning-Fruit Charge (Administration) Act 1959 is to be read as one with the Act.

Canning-Fruit Charge (Administration) Act 1959 (No. 82 of 1959). Makes it an offence to engage in the production of canned fruit unless registered as a canner by the Commissioner of Taxation. The canner is to deduct the charge payable by the supplier from the payment made for the fruit delivered, and is to pay the charge to the Commissioner. The canner's payment shall be deemed to be made with the authority, and on behalf of, the supplier. The canner is to furnish to the supplier and to the Commissioner a statement of the amount of the deduction. Amounts unpaid are recoverable as debts due to the Commonwealth.

The Commissioner may require the furnishing of returns or information, which must then be duly furnished; may demand production of the records which a canner is required to keep by the Act; and has full and free access to all buildings, places, books, accounts and documents.

Provisions are made in relation to offences under the Act, to the making of regulations, and to the powers of the Second Commissioner and to delegations of powers or functions to Deputy Commissioners of Taxation.

Civil Aviation (Carriers' Liability) Act 1959 (No. 2 of 1959). Repeals the Carriage by Air Act 1935 and provides that the Warsaw Convention, which is set out in the First Schedule to the Act, shall have the force of law in Australia subject to the amendments made to it by the Hague Protocol, which is set out in the Second Schedule to the Act. Approval is given to the ratification by Australia of the Hague Protocol.

Provisions are made in relation to liability imposed by the Convention upon a carrier in respect of the death or personal injury of a passenger. Where the carrier proves that the damage was contributed to by the negligence of the passenger or consignor the damages determined by the Court are to be reduced to the extent that the Court thinks just. Nothing in the Convention or the Act shall be deemed to exclude any liability of a carrier to pay workmen's compensation under Commonwealth or State laws, or to pay contribution to a tort-feasor. Proceeds of insurance policies or provident funds, social service benefits, pensions, and sums obtained through interest acquired in dwellings sold at any time as the home of the beneficiary (where the acquisition is consequent upon the death of a spouse or parent of the beneficiary) are not to be taken into account by way of reduction of damages.

For the purposes of section 38 of the Judiciary Act 1903-1955 (whereby the jurisdiction of the High Court is exclusive of that of the State Courts in matters arising directly under any treaty), an action under the Convention shall be deemed not to be a matter arising under a treaty.

The Minister may, by notice published in the *Gazette*, declare that a country specified in the notice has ratified or adhered to the Hague Protocol, and this notice shall be evidence of the matters declared.

The Act also provides in a separate Part that the Warsaw Convention, unaffected by the Hague Protocol, shall have the force of law in Australia in relation to any carriage by air to which the Convention applies, irrespective of the nationality of the aircraft performing the carriage.

Provisions are made in Part IV. of the Act for the liability of carriers by air for the death or injury of passengers or for damage to or loss of baggage, in cases where the Warsaw Convention, or the Warsaw Convention as affected by the Hague Protocol, does not apply. The amount of liability of a carrier under this Part in respect of the death or injury of each passenger is limited to £7,500 or such higher sum as is specified in the contract of carriage. Liability may not be limited to less than £7,500 by any agreement. Provisions are also made under this Part in relation to the limitation of actions, liability in respect of the death or injury of a passenger, the assessment of damages, contributory negligence, and the making of regulations.

The limitations of liability imposed by the Act apply to stowaways.

The Governor-General is given power to make regulations under the Act.

Commonwealth Aid Roads Act 1959 (No. 39 of 1959). Makes payable to the States annual payments for each year from the year commencing 1st July, 1959, to that commencing 1st July, 1963, totalling £220,000,000.

Tasmania is to receive one twentieth of each annual payment, and of the rest of each payment one third is to be distributed among the other States according to their respective populations as published by the Commonwealth Statistician, one third according to their respective areas, and one third according to the number of registered motor vehicles.

Provisions are also made for the payment of additional annual financial assistance to States according to the formula set out in the Act; for the manner in which the payments made are to be expended by the States; for the expenditure of at least two-fifths of the payments made to the States upon rural roads; for the furnishing of certified statements of expenditure by the States to the Minister for Shipping and Transport; and for the States' liability to repay to the Commonwealth the excess of an amount paid over the amount properly payable.

Commonwealth Banks Act 1959 (No. 5 of 1959). Has effect subject to the Banking Act 1959 and to regulations under that Act.

It establishes the Commonwealth Banking Corporation as a body corporate and a Commonwealth Banking Corporation Board.

The Board has power to determine the policy of, and control the affairs of, the Corporation, the Commonwealth Trading Bank of Australia, the Commonwealth Savings Bank of Australia, and the Commonwealth Development Bank of Australia.

Separate Executive Committees of the Board are established for the Trading Bank, the Savings Bank and the Development Bank.

Provisions similar to those of the Reserve Bank Act 1959 are made for the case of disagreement between the Board and the Government as to the merits of a policy.

Provisions are made in relation to the Commonwealth Trading Bank of Australia; its continuance in existence as a body corporate; its carrying on of general banking business; its non-refusal to carry on business in competition with other banks; its powers; its capital; the Commonwealth Trading Bank Reserve Fund; the distribution of one-half of its net profits into the Reserve Fund and of the other half to the Commonwealth; its office of General Manager and the vacation of that office; its payment of a proportion of the expenses of the Corporation determined by the Board; its agreements with other banks to take over their assets, liabilities and business; and its agents.

The Act also provides for the continuance in existence of the Commonwealth Savings Bank of Australia as a body corporate; its duty to encourage saving and to promote the interests of its depositors; its powers; the Commonwealth Savings Bank Reserve Fund; the distribution of one-half of its net profits into the Reserve Fund and of the other half to the Commonwealth; its office of General Manager and the vacation of that office; its payment of a proportion of the expenses of the Corporation determined by the Board; its agreements with other banks to take over their assets, liabilities and business; its agents; interest payable by it to the credit of depositors; the determination by the Board of rates

of interest; the application of unclaimed deposits; and the exemption from liability to stamp duty of bills of exchange and cheques drawn on the Savings Bank and of receipts given to the Savings Bank.

Provisions are made in relation to the making of loans by the Savings Bank or Trading Bank to building societies and individuals for the erection and purchase of houses or for the discharge of mortgages on homes; to the preference to be given to loans for the erection of homes or for the purchase of newly erected homes; to the making of loans for housing purposes at the lowest practicable rates of interest; to the maximum ratio of the amount of the loan to the value of the security; to the making of loans to individuals on *crédit foncier* terms; to the need for the Trading Bank or the Savings Bank to be satisfied that the borrower is residing in the home or will reside in the home within a short time; to the requirement that the loans be made upon the security of a mortgage; to the maximum and minimum periods and amounts of the loans and the manner of their repayment; to the Bank's power to insure homes mortgaged; and to the transfer of mortgaged land without notice to the Bank.

The Act also establishes the Commonwealth Development Bank of Australia as a body corporate. Its functions are to provide finance for the purposes of primary production or for the establishment or development of industrial undertakings, particularly small undertakings. In determining whether finance shall be provided for a person, the Development Bank is to have regard primarily to the prospects of the success of that person's operations, and not necessarily to the value of the security available.

Provisions are made in relation to the powers of the Development Bank; its capital; the Commonwealth Development Bank Reserve Fund; the placing of its net annual profits to the credit of the Reserve Fund; the office of General Manager and the vacation of that office; its payment of a proportion of the expenses of the Corporation determined by the Board; its payment of the Savings Bank or Trading Bank for any services rendered by those banks; its agents; and the limitation of £2,000,000 of the moneys which the Development Bank may borrow from the Reserve Bank.

The Act also provides for the appointment and employment of officers and temporary and casual employees in the Commonwealth Banking Corporation Service.

Provisions are also made in relation to the appointment of attorneys; to the responsibility of the Commonwealth for payment of moneys due; to the approval of the Treasurer for amounts written off; to the liability and non-liability of the Trading Bank and the other two Banks; to auditing; to annual reports and financial statements; to the power to improve property held by the Banks as security; to the execution and validity of contracts; to the making of judicial notice of Seals; to the investment on deposit of trust moneys by trustees, executors or administrators; to the preservation of the existing and accruing rights of Commonwealth Public Servants; and to the making of regulations by the Governor-General.

Commonwealth Motor Vehicles (Liability) Act 1959 (No. 94 of 1959). Provides that in proceedings by or against the Commonwealth or a Commonwealth authority for damages in respect of death or personal injury arising out of the use of an uninsured motor vehicle owned by the Commonwealth or by the authority, or for contribution in relation to the liability of the Commonwealth or a Commonwealth authority for such damages, the driver of the vehicle shall, for purposes of the claim, be conclusively presumed to have been, at all relevant times, the agent of the Commonwealth or the Commonwealth authority. But nothing in the Act is to imply ratification of the acts of the driver.

The Act extends to proceedings arising out of occurrences taking place after 8th September, 1958.

Whether a claim should be tried with or without a jury is to be determined in accordance with the law that would be applicable in the Court hearing the claim in a like claim against an owner of a vehicle in respect of which there was a third-party policy.

Conciliation and Arbitration Act 1959 (No. 40 of 1959). Amends the Conciliation and Arbitration Act 1904-1958 by substituting new provisions in section 34 in relation to the reference of industrial disputes to the Commission; by inserting provisions (section 44A) allowing the President to direct that the Commission take evidence and hear argument in joint session, if he considers it desirable so to do for the purpose of facilitating the hearing and determination of two different matters before different persons constituting the Commission where in his opinion a question is common to those matters; and by inserting a provision (section 170A (3A)) relating to the arrangements to be made by the Industrial

Registrar for the completion of the conduct of an election where the person conducting the election under section 165A or 170 dies or becomes unable or unqualified to conduct the election.

Customs Act 1959 (No. 54 of 1959). Amends the Customs Act 1901-1957 by inserting a definition of "genuine invoice"; by validating Proclamations under section 15 of the old Act prior to the commencement of the 1959 Act whereby wharfs not within ports were appointed; and by altering that section so as to allow the appointment of wharfs not within ports. New provisions are made in relation to the licensing of carriers of goods subject to the control of the Customs by empowering the Collector, where he is of the opinion that goods should not be removed to a place specified in an entry, to require the owner of the goods by written notice to withdraw the entry; to goods entered for removal to a specified place; to the production of genuine invoices; to the obligation upon masters after the boarding of their ships by officers to bring their ships to the proper place of mooring and unload as quickly as practicable; to the entry of imported goods; to the entry of warehoused goods; to the entry of goods for export; to the goods which the master of a ship or pilot of an aircraft shall suffer to be taken on board his ship or aircraft; to the repeal of sections 155 and 156 of the old Act (relating to genuine invoices) and of sections 170-174 (relating to the minimum value of allowable drawbacks, to the examination of goods under drawback; and to the presenting and payment of drawback debentures); to authorized customs agents and their licences; to the suspension and revocation of their licences and to their right to appeal; to the establishment, membership, powers and procedure of Committees of Inquiry; to the power to arrest witnesses failing to appear before a Committee; to the representation by and the protection of counsel; to the power to arrest persons without warrant where there is reasonable ground for believing that the person has committed the offence of assaulting an officer in the execution of his duties; to the repeal of section 211 (requiring an officer to furnish in writing reasons for an arrest); to the continuation in force of customs agents' licences granted under section 180 of the old Act; and to the making of regulations.

Income Tax and Social Services Contribution Assessment Act (No. 2) 1959 (No. 70 of 1959). Amends the Income Tax and Social Services Contribution Assessment Act 1936-1958 by extending the Act to Christmas Island; by exempting from income tax pensions, annuities and allowances paid as compensation by a State of the Federal Republic of Germany under the laws of that Republic relating to the victims of National Socialist persecution; by substituting new provisions (section 77A) in relation to allowable deductions from assessable income in respect of moneys paid on shares in petroleum exploration companies and expended in mining or prospecting for petroleum in Australia, Papua or New Guinea; by including as allowable deductions gifts (not being testamentary gifts) of money to marriage guidance organizations approved by the Attorney-General, to the Australian National Committee for the World Refugee Year, and to the Council for Jewish Education in Schools; by inserting a new provision (section 82 (4)) in relation to what might otherwise give rise to a double deduction under the Act; by new provisions in relation to deductions allowable under section 122 in respect of capital expenditure by persons carrying out mining operations upon mining properties and of housing and welfare expenditure by those persons; and by amendments to sections 123A (relating to deductions of unrecouped capital expenditure on prospecting or mining for petroleum), to section 124B (relating to elections under section 122AB), and to section 160 (relating to rebates in the case of a disposal of assets of a business of primary production).

Income Tax and Social Services Contribution Assessment Act (No. 3) 1959 (No. 85 of 1959). Amends the Income Tax and Social Services Contribution Assessment Act 1936-1959 by the repeal of provisions rendered inapplicable since the 1939-1945 War or since the cessation of income taxation by the States or since the imposition of provisional tax (sections 23 (w), 72 (1A), 72B, 102AA, 221 (1) (a), 211YBA and 221YCA); by omitting all references to "advance payments" in Division 3 of Part VI. of the Act; by an amendment to the definition of "distributable income" in section 103 (1); and by new provisions in relation to—

- (a) the amounts of money received by bondholders upon the redemption of special bonds (section 23E);
- (b) the disposal of seasonal securities (section 26C);
- (c) taxation upon dividends paid out of Australia to non-residents of Australia (sections 128A-128E);
- (d) the equality in priority of the costs, charges and expenses of the administration of a bankrupt's estate or of the winding-up of a company in liquidation with debts due to the Commissioner (section 221F (3));

- (e) the non-payability of provisional tax in respect of non-resident dividend income except in accordance with the Act (section 221YAB); and
- (f) the collection of dividend (withholding) tax by deductions from dividends (Division 4 of Part VI., sections 221YJ–221YV).

Income Tax and Social Services Contribution (Non-resident) Dividends Act 1959 (No. 86 of 1959). Imposes a tax known as income tax and social services contribution, to the extent that that tax is payable in accordance with section 128B of the Income Tax and Social Services Contribution Assessment Act 1936–1956, upon income to which that section applies, the rate to be 30 per cent. For the purposes of section 221YB of the latter Act, this Act is not to be deemed to be the Act declaring rates of tax and contribution payable for the financial year commencing on 1st July, 1960, or for any subsequent financial year.

International Monetary Agreements Act 1959 (No. 33 of 1959). Gives approval to Australia consenting to an increase by one-half of its quota in the International Monetary Fund and to Australia subscribing shares that she will become entitled to subscribe if the proposal to increase the Bank's authorized capital stock by 10,000,000 dollars becomes effective. Section 7 of the International Monetary Agreements Act 1947 (relating to the issue of securities) applies.

International Wheat Agreement Act 1959 (No. 69 of 1959). Repeals the International Wheat Agreement Act 1956 and approves the acceptance by Australia of the International Wheat Agreement 1959.

Loan (Short-term Borrowing) Act 1959 (No. 61 of 1959). Empowers the Treasurer to borrow money from time to time on the security of Seasonal Securities (as defined by the Act), and to expend money borrowed under the Act and standing to the credit of the Loan Fund for the purposes of any appropriation made or to be made out of the Consolidated Revenue Fund (notwithstanding section 57 of the Audit Act 1901–1957). The moneys must be borrowed and the securities issued in accordance with clause 6 of the Financial Agreement referred to in section 4 of the Financial Agreement Act 1944.

Provisions are made for the Governor-General to create Seasonal Inscribed Stock, to authorize the Treasurer to issue this stock, or to make out and issue Seasonal Treasury Notes; for the form of the Notes; for the issue and sale on such terms and conditions and in such amounts and manner as the Treasurer directs; for the issue of Seasonal Securities at a discount and their redemption at par on maturity, and for their maturity before the end of the financial year in which they are issued; for the repurchase of seasonal securities by the Treasurer before maturity; for the non-accounting of the moneys borrowed under sections 9 and 9AA of the National Debt Sinking Fund Act 1923–1950; for the application of Part III. of the Commonwealth Inscribed Stock Act 1911–1946 and of sections 13, 13A, 13B, and 14 of the Treasury Bills Act 1914–1950; for the exchange of Seasonal Inscribed Stock for Seasonal Treasury Notes and vice versa; for the investment by trustees, executors and administrators in Seasonal Securities; for immunity from stamp duty; and for regulations under the Act.

Matrimonial Causes Act 1959 (No. 104 of 1959). Repeals the Matrimonial Causes Act 1945 and the Matrimonial Causes Act 1955 (but saves the validity of judgments, decrees and orders and of the amendment made to the Service and Execution of Process Act 1901–1934 by the Matrimonial Causes Act 1945.)

The whole Act extends to Norfolk Island. Sections 4 (1.), 12, 16, 94 and 95 (1.) extend to all the Territories of the Commonwealth.

Matrimonial causes are not to be instituted after the commencement of the Act except in accordance with the Act. Causes instituted before the commencement of the Act are not to be continued except in accordance with Part XIII. of the Act (transitional provisions).

The Act provides for the granting by the Attorney-General upon such terms as he thinks fit of moneys appropriated for the purpose by the Parliament to approved marriage guidance organizations, and for the non-competence and non-compellability of a marriage guidance counsellor to disclose to a court admissions or communications made to him.

It is the duty of a Court in which a matrimonial cause has been instituted to give consideration, from time to time, to the possibility of a reconciliation and if at any time it appears to the Judge that there is a reasonable possibility of reconciliation he may adjourn the proceedings, interview the parties, with or without counsel as he thinks proper, and nominate a person or organization to endeavour, with the consent of the parties, to effect a reconciliation. Evidence of things said or admissions made in the course of an endeavour to effect a reconciliation is not admissible, and marriage conciliators are to take an oath or affirmation of secrecy.

Marriages taking place after the commencement of the Act are void where—

- (a) either party is at the time of the marriage lawfully married to some other person;
- (b) the parties are within the prohibited degrees of consanguinity or affinity specified in the Second Schedule to the Act;
- (c) the marriage is not a valid marriage under the law of the place where the marriage takes place, by reason of a failure to comply with the requirements of the law of that place with respect to the form of solemnization of marriages;
- (d) the consent of either party is not a real consent because—
 - (i) it was obtained by fraud;
 - (ii) that party is mistaken as to the identity of the other party, or as to the nature of the ceremony performed; or
 - (iii) that party is mentally incapable of understanding the nature of the marriage contract; or
- (e) either of the parties is not of marriageable age,

and not otherwise.

Provisions are made for the judicial relaxation of the prohibited degrees of consanguinity or affinity under exceptional circumstances.

Marriages taking place after the commencement of the Act (other than void marriages), are voidable only where, at the time of the marriage, either party is incapable of consummating the marriage, or is of unsound mind, or is a mental defective, or is suffering from venereal disease in a communicable form, or where the wife is pregnant by a person other than the husband.

Matrimonial causes may be instituted under the Act in the Supreme Courts of the States and Territories to which the Act applies. Proceedings for decrees of dissolution of marriage or of nullity of voidable marriages are not to be instituted under the Act except by persons domiciled in Australia. Proceedings for decrees of nullity of void marriages, judicial separation, restitution of conjugal rights or jactitation of marriage are not to be instituted except by persons domiciled or resident in Australia. Proceedings are not to be instituted in the Supreme Courts of Territories unless one of the parties is ordinarily resident in the Territory or has been resident in the Territory for not less than six months before the proceedings are instituted. Special provisions are made for the retention by deserted wives of Australian domicile and for residence in Australia for three years to be equivalent of domicile in the case of a wife.

Subject to the Act, in proceedings for nullity of marriage, judicial separation, restitution of conjugal rights or jactitation of marriage, the court is to act and give relief as nearly as may be in conformity with the principles and rules applied in the ecclesiastical courts of England immediately before the commencement of the Matrimonial Causes Act 1857 (Imperial) and, where it would be in accordance with the common law rules of private international law to do so, to apply the laws of any country or place (including a State or Territory of the Commonwealth).

The Act provides that a petition under the Act for dissolution of marriage may be based on any one or more of the following grounds:—

- (a) adultery since the marriage;
- (b) wilful desertion without just cause or excuse for not less than two years;
- (c) wilful and persistent refusal to consummate the marriage;
- (d) habitual cruelty since the marriage during a period of not less than one year;
- (e) rape, sodomy or bestiality since the marriage;
- (f) habitual drunkenness, or habitual intoxication (by reason of taking or using to excess any sedative, narcotic or stimulant), or both, for a period of two years since the marriage;
- (g) the husband's frequent convictions for crime in respect of which he has been sentenced in the aggregate to imprisonment for not less than three years within a period since the marriage not exceeding five years, and his habitually leaving the petitioner within this period without reasonable means of support;
- (h) imprisonment since the marriage for not less than three years preceding the date of the petition and still continuing at the date of the petition, following conviction for an offence punishable by death or imprisonment for life or for five years or more;

- (i) attempted murder or unlawful killing of the petitioner since the marriage and within one year immediately preceding the date of the petition, or the commission of an offence within this period involving the intentional infliction of grievous bodily harm on the petitioner;
- (j) habitual and wilful failure, throughout the period of two years immediately preceding the date of the petition, to pay maintenance for the petitioner ordered by a Court in the Commonwealth or a Territory of the Commonwealth or agreed to be paid under a separation agreement;
- (k) non-compliance, for not less than a year, with a decree of restitution of conjugal rights made under the Act;
- (l) unsoundness of mind at the date of the petition, with unlikelihood of recovery and with confinement, since the marriage and for a period of or aggregating five years out of the immediately preceding six years, in an institution where persons may be confined for unsoundness of mind in accordance with law;
- (m) separation for a continuous period of five years, when there is no reasonable likelihood of cohabitation being resumed;
- (n) absence for such time and in such circumstances as to provide reasonable grounds for presuming death.

Provisions are made in relation to constructive desertion; desertion arising from a refusal, without reasonable justification, to comply with a bona fide request to resume cohabitation; the continuance of wilful desertion notwithstanding the deserting party's having become incapable, after the desertion, of forming or having an intention to continue the desertion; the withholding of a decree upon ground (m) above where the court is satisfied that, in the particular circumstances of the case, it would be harsh and oppressive or contrary to the public interest to grant the decree or, in its discretion where the petitioner has committed adultery; the sufficiency of absence for seven years to establish ground (n) above where there is no indication to the contrary.

Condonation or connivance is a bar to relief sought on any of the grounds (a) to (k) above (inclusive). Collusion with intent to cause a perversion of justice is a bar to relief sought on any ground. The Court is given a discretion to refuse a decree on grounds (a) to (l) above (inclusive) on the ground of the petitioner's adultery, cruelty, wilful desertion, or condusive or contributory habits.

Provision is made for claims by either husband or wife for damages in respect of adultery; and for the joinder as parties of persons alleged to have committed adultery with the respondent.

Except where the ground of a petition is (a), (c) or (e) above, proceedings for a decree of dissolution of marriage are not to be instituted within three years of the marriage except by leave of the Court, and the Court may not grant leave except on the ground that to refuse would impose exceptional hardship or that the case is one involving exceptional depravity.

The Act also provides for petitions for decrees of nullity of marriage on the ground that the marriage is void or that it is voidable at the suit of the petitioner. Certain restrictions are placed on the right to obtain a decree on the ground that a marriage is voidable (Sections 48-50).

A decree of nullity annuls the marriage from and including the date when the decree becomes absolute. It does not render illegitimate a child born since, or legitimated during, the marriage.

Provisions are made for decrees of judicial separation on any of grounds (a) to (l) above (inclusive); for the effect of the decree in relieving the petitioner from the obligation to cohabit without otherwise affecting the status, rights and obligations of the parties; for the rights of action of either party in contract or in tort while the decree is in operation; for the rights of either party upon the other's dying intestate; for the husband's liability for necessities supplied for the wife's use, where he has not duly complied with a maintenance order; for the wife's continued right to join in the exercise of any power given to herself and her husband jointly; for the right of the parties to consent to an order discharging the decree upon their voluntary resumption of cohabitation; and for the continued right of either party to institute proceedings for dissolution.

Provisions are also made in relation to decrees of restitution of conjugal rights. An agreement for separation is not to be a defence. A decree is not to be granted unless the sincerity of the petitioner is established.

Provisions are made for obtaining a decree of jactitation of marriage where the respondent has falsely boasted and persistently asserted that a marriage has taken place between the respondent and the petitioner.

The Act provides for the making or refusal of decrees by reason of facts and circumstances notwithstanding that they, or some of them, took place before the commencement of the Act or outside Australia; for the circumstances where and the periods at the end of which decrees *nisi* for dissolution of marriage or nullity of voidable marriages become absolute; for the rescission by the Court, where the parties have become reconciled, of the decree *nisi* at any time before the decree becomes absolute; for the Attorney-General's power to intervene where he has reason to believe that there are matters relevant to the proceedings that have not been, or may not be, but ought to be, made known to the Court; for the delegation by the Attorney-General of his power to intervene to the Solicitor-General or Crown Solicitor of the Commonwealth and to the Attorneys-General, Solicitors-General and Crown Solicitors of the States; and for intervention by other persons; for the rescission of a decree *nisi* where, following an intervention, collusion or withholding of material facts is proved. Courts are empowered to make maintenance orders and orders settling the property of the parties and, with the interest of the children as the paramount consideration, orders placing the children in the custody of a party to the marriage or in the custody of a person other than a party to the marriage and orders providing for access to the children. Wide ancillary powers are conferred on Courts (Section 87).

A Court is empowered to make orders for maintenance, custody or access where the petition for the principal relief has been dismissed after a hearing on the merits, where the Court is satisfied that the proceedings for the principal relief were instituted in good faith to obtain that relief, and that there is no reasonable likelihood of the parties becoming reconciled.

The Act provides for appeals, before the decree has been made absolute, from a single Judge of a Supreme Court of a State to the Full Court of the Supreme Court. Notwithstanding the Judiciary Act 1903-1959, no appeal lies to the High Court from a Supreme Court of a State exercising its original or appellate jurisdiction except by special leave of the High Court.

Provisions are made in relation to the effect of decrees under the Act throughout the Commonwealth and all its territories; to the recognition of foreign decrees as valid in Australia under certain circumstances; to the proof of matters of fact to the reasonable satisfaction of the Court; to the competence and compellability as witnesses of parties and their spouses; to the compellability and non-compellability of witnesses; to the evidentiary value of convictions for rape, for crimes involving sexual intercourse, for sodomy or for bestiality.

Provisions are made for the enforcement of maintenance orders by attachment and sequestration; the registration of decrees in other Courts having jurisdiction; the recovery of moneys due under decrees as judgment debts; the enforcement of maintenance orders in Courts of Summary Jurisdiction; the enforcement of maintenance orders by the special attachment of earnings in accordance with the procedure set out in the Third Schedule to the Act; the hearing of proceedings in open Court except in special circumstances; and the hearing and determination of matrimonial causes without juries. Courts are empowered to set aside or restrain the making of instruments or dispositions made to defeat orders for costs, maintenance, damages, or property settlements. A minister of religion is not obliged to solemnize the marriage of a person whose former marriage has been dissolved otherwise than by death. The Act provides for the offence of printing or publishing any account of the evidence of any proceedings under the Act, other than the information allowed by the Act and not ordered not to be published by the Court; for the granting of injunctions; for the ordering of costs and security for costs; and for the dismissal of proceedings as frivolous or vexatious. The Governor-General is authorized to make rules in relation to the practice and procedure of Courts having jurisdiction under the Act.

Ministers of State Act 1959 (No. 18 of 1959). Amends the Ministers of State Act 1952-1956 by increasing the annual maximum sum payable in pursuance of section 66 of the Constitution for the salaries of the Ministers of State from £46,500 to £66,600, and by increasing the amount payable to each Minister (other than the Prime Minister) out of the Consolidated Revenue Fund as an allowance in addition to his salary from £1,000 a year to £1,500 a year in such cases (not exceeding eleven) as the Prime Minister determines, and to £1,250 a year in the other cases.

Northern Territory (Administration) Act 1959 (No. 28 of 1959). Amends the Northern Territory (Administration) Act 1910-1956 by substituting a new definition of the Legislative

Council, by substituting the headings to Parts II., III. and V. of the Act, and by repealing section 4c of the Act (relating to the election of members of the Legislative Council) and replacing it with provisions relating to the division of the Territory into eight Electoral Districts; to the election of one member for each district; to the prescribing of boundaries for each district; to the making of a distribution of the Territory whenever the Minister so directs; to the appointment by the Minister of a Distribution Committee; to the procedure at meetings of the Committee; to matters to be considered for the purpose of a proposed distribution; to the invitation of public attention to a map of the proposed division; to the consideration of objections and suggestions lodged with the Committee; to the making of a report by the Committee.

The Act also substitutes new provisions relating to disqualifications for membership of the Legislative Council; to the receipt by elected members and non-official members of the Legislative Council of such fees, allowances and travelling expenses as are prescribed; to the number of members (nine) whose presence is needed to constitute a meeting of the Legislative Council; to the validation of acts of the Legislative Council; to the assenting to by the Administrator of Ordinances passed by the Legislative Council; to the reservation of certain Ordinances for the Governor-General's pleasure; to the disallowance by the Governor-General of Ordinances or parts of Ordinances assented to by the Administrator; and to the laying of Ordinances before each House of Parliament.

New provisions are inserted for an Administrator's Council to advise the Administrator; the holding of office by members of the Administrator's Council; the resignation of members; the functions of the Administrator's Council; the oath or affirmation to be taken by members; the fees, allowances and travelling expenses of members.

Section 21 of the 1910-1956 Act, which related to the Aborigines (Benefits from Mining) Trust Fund, is repealed and provisions establishing the Wards (Benefits from Mining) Trust Fund are substituted.

Parliamentary Allowances Act 1959 (No. 19 of 1959). Amends the *Parliamentary Allowances Act* (No. 19 of 1959) 1952-1956 by increasing the allowance of each senator and each member of the House of Representatives from £2,350 a year to £2,750 a year, and by increasing their additional allowances in respect of the expenses of discharging their duties as follows:—

- (a) for senators—from £700 a year to £800 a year;
- (b) for members of the House of Representatives who are members of Electoral Divisions specified in the Second Schedule to the Act—from £850 to £1,050 a year;
- (c) for other members of the House of Representatives—from £800 a year to £1,050 a year.

The Act also provides for increases of the allowances to the President of the Senate, the Speaker of the House of Representatives, the Chairman of Committees of either House, to the Leader and Deputy Leader of the Opposition in either House, to the Leader of a third party in the House of Representatives, and to Government and Opposition Whips in either House.

The Second Schedule to the Act is amended by the omission of the names of two Electoral Divisions.

Parliamentary Retiring Allowances Act 1959 (No. 20 of 1959). Amends the *Parliamentary Retiring Allowances Act 1948-1955* by increasing the rate of annual contributions to the fund by members from £234 per annum to £260 per annum; by adding a provision whereby the Commonwealth shall pay into the Fund such further amounts as the Treasurer determines are, by reason of the *Parliamentary Retiring Allowances Act 1959*, necessary to maintain the solvency of the Fund; by changing the age at which members are deemed to have retired voluntarily, if they have attained that age when they cease to be entitled to a parliamentary allowance, from 70 years to 60 years; by changing the provisions of section 18 (which provides that members who cease to be entitled to parliamentary allowances shall be entitled to benefits from the Fund and prescribes the methods of computation of the rates of benefit under specified circumstances); by amendments to the provisions of section 19 (relating to the entitlement to benefits upon the death of a member); by increasing the amount of pension for the widow of a deceased member to £15 a week; by amendments to section 19A (relating to additional benefits to the Prime Minister); and by amendments to section 21 (relating to the reduction of pensions when members are holding offices under the Commonwealth or a State or are receiving salaries or allowances as Members of State Parliaments or are receiving pensions arising out of such offices or memberships).

Petroleum Search Subsidy Act 1959 (No. 60 of 1959). Provides that after its commencement applications for approval by the Minister of proposed drilling operations shall not be lodged under the Petroleum Search Subsidy Act 1957-1958. The Act extends to Papua and New Guinea.

It makes subsidy payable in accordance with agreements entered into by the Minister under the Act in relation to the approved operations to which the agreements relate. It provides for the manner in which an applicant may apply for the Minister's approval of a proposed operation; for the particulars to be supplied; and for the Minister's power, in his discretion, to enter into an agreement. It prescribes the various proportions of the costs incurred by the applicant to be the maximum subsidy payable pursuant to the agreement in respect of various specified operations, and provides for terms and conditions of the agreement, for the period within which subsidy is to be payable, and for the annual tabling by the Minister in each House of Parliament of statements concerning the operation of the Act.

Public Service Arbitration Act 1959 (No. 41 of 1959). Amends section 15A of the Public Service Arbitration Act 1920-1957 in relation to the reference in the public interest to the Commonwealth Conciliation and Arbitration Commission of a claim, application or matter, and adds to that section a provision enabling the President to refer to the Arbitrator or to a presidential member a matter for inquiry and report, before the Commission has been constituted as required by the section.

Reserve Bank Act 1959 (No. 4 of 1959). Repeals the Commonwealth Bank Act 1945-1953, but continues in existence as a body corporate the Commonwealth Bank of Australia under the name Reserve Bank of Australia, but so that its corporate identity shall not be affected.

References in Commonwealth laws to the Commonwealth Bank of Australia are to be read as references to the Reserve Bank, except in the case of the items of legislation specified in the First Schedule to the Act. It specifies the powers of the Bank and establishes a Reserve Bank Board with power to determine the monetary and banking policy of the Bank and to take action to ensure the effect of the policy.

The Board is to inform the Government of its policy, and in the event of differences of opinion between the Board and the Government (whether the policy is directed to the greatest advantage of the people of Australia), provisions are made for determination of the policy by the Governor-General acting with the advice of the Federal Executive Council, and for the laying before each House of Parliament of a copy of the order determining the policy, of a statement by the Government, and of the statement furnished to the Treasurer by the Board.

The Bank is the central bank of Australia and is, subject to the Act and to the Banking Act 1959, not to carry on business other than as a central bank. It is to act as the banker and financial agent of the Commonwealth.

Provisions are made in relation to the capital of the Bank; to the Reserve Bank Reserve Fund; to the application of the profits of the Bank; to the publication by the Bank of exchange rates for sterling expressed in terms of Australian currency; to the issue of Australian notes as legal tender by the Note Issue Department of the Bank; to the keeping of a special reserve account in the Note Issue Department; to the furnishing of returns by banks to the Bank of notes held by those banks; and to offences in relation to Australian notes.

Provisions are made for the making of advances by the Rural Credits Department of the Bank for the purpose of assisting the marketing of primary produce or the processing or manufacture of primary produce to Commonwealth or State authorities or co-operative associations. Goods included in the term "primary produce" are specified in the Second Schedule to the Act. Provisions are made in relation to the capital of the Rural Credits Department; the Rural Credits Department Reserve Fund; to loans from the Treasurer to the Bank for the purposes of the Department; to advances by the Bank to the Department; and to the Rural Credits Development Fund.

Provisions are made in relation to the head office of the Bank; to agents acting for it; to its Attorney; the Commonwealth's responsibility in respect of the Bank; to the Bank's non-liability for taxation; to auditing; to the furnishing of annual reports and financial statements; to the Bank's power to improve property held by the Bank as security for a loan; to the execution of contracts; to judicial notice to be taken of the Bank's seals; to the priority of debts due to the Bank by banks over all other debts of those banks other than debts due to the Commonwealth; to the validity of acts and transactions of the Bank; to the preservation of officers' rights under the Public Service Act; and to the Governor-General's power to make regulations under the Act.

Science and Industry Research Act 1959 (No. 78 of 1959). Amends the Science and Industry Research Act 1949 by increasing the number of members of the Executive of the Commonwealth Scientific and Industrial Research Organization (other than the Chairman) from four to eight, the number of members with scientific qualifications from three to five, the number of members who, together with the Chairman, shall devote the whole of their time to the duties of their office, from two to four, and the number forming a quorum from three to five.

Statutory Declarations Act 1959 (No. 52 of 1959). Repeals the Statutory Declarations Act 1911–1944 but saves the appointments of Commissioners for Declarations. It provides that any person, if he so desires, may make a statutory declaration in relation to any matter, the declaration to be used for the purposes of Commonwealth or Territory laws or matters arising under those laws in connexion with the administration of any Commonwealth Department. The form of the declaration is set out in the Schedule to the Act, and provisions are made in relation to the persons before whom a declaration may be made; to the appointment by the Attorney-General of Commissioners for Declarations; to the inclusion in a reference to a statutory declaration in any Commonwealth or Territory law of a statutory declaration made by virtue of the Act; to the offence of wilfully making a false statement in a statutory declaration; to the federal jurisdiction of State courts and the jurisdiction of courts of the Territories with respect to offences against the Act; and to the application of the Act to Norfolk Island and to such other Territories not forming part of the Commonwealth as the Governor-General declares by Proclamation.

§ 4. Commonwealth Government Departments.

Official Year Book No. 37 contains, on pages 76–86, a list of the Commonwealth Government Departments as at 31st March, 1947, showing details of the matters dealt with by each Department, and the Acts administered by the Minister of each Department and Year Book No. 39 contains, on pages 100–1, a description of major changes in Departmental structure from 1947 to 1951. Apart from the structural changes and transfers of functions described therein, there are several Departments which, in the interval between 1947 and 1956, were developed to cope with changing circumstances affecting the particular Department. The Prime Minister's Department, the Department of Immigration, and the Department of Social Services were among those whose organizations were thus altered. On page 81 of Official Year Book No. 43, details were shown of a major re-organization, in January, 1956, of the functions of the Departments of Commerce and Agriculture and Trade and Customs, resulting in the creation of the Departments of Trade, Customs and Excise, and Primary Industry. The reference to the Department of Trade's control of statutory marketing boards appearing in that issue should have been omitted, as this function was assumed by the Department of Primary Industry at the re-organization. In April, 1958, the Departments of Supply and Defence Production were amalgamated under the name of Department of Supply, consequent on the report of the Morshead Committee on the organization of the Defence group of Departments.

§ 5. Cost of Parliamentary Government.

The tables in this section are intended to represent the expenditure incurred in the operation of the Parliamentary system in Australia, comprising the Governor-General and Governors, the Ministries, the Upper and Lower Houses of Parliament, and electoral activities; they do not attempt to cover the expenditure on Commonwealth and State administration generally.

Comparison between individual items should be made with caution because of differences in accounting and presentation.

The following statement shows this expenditure for the Commonwealth and for each State, as well as the cost per head of population, for the year ended 30th June, 1959. In order to avoid incorrect conclusions as to the cost of the Governor-General's or Governor's establishment, it may be pointed out that a very large part of the expenditure (with the exception of the item, "Governor's salary") under the head of Governor-General or Governor represents official services entirely outside the Governor's personal interest, and carried out at the request of the Government.

COST OF PARLIAMENTARY GOVERNMENT, 1958-59.

(£.)

Particulars.	C'wlth.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
1. Governor-General or Governor(a)—								
Governor's salary ..	10,000	6,000	7,500	5,325	13,600	4,750	2,070	49,245
Other salaries ..	14,044	23,235	8,204	10,487	8,014	5,263	18,948	88,195
Other expenses, including main- tenance of house and grounds	120,315	14,013	50,780	30,380	7,751	21,746	8,606	253,591
<i>Total</i> ..	<i>144,359</i>	<i>43,248</i>	<i>66,484</i>	<i>46,192</i>	<i>29,365</i>	<i>31,759</i>	<i>29,624</i>	<i>391,031</i>
2. Official Establishments ..	<i>20,774</i>	..	..	..	..	..	..	<i>20,774</i>
3. Ministry—								
Salaries of Ministers ..	79,389	70,694	24,393	41,467	28,660	13,900	8,600	267,103
Oversea conferences, etc. ..	48,859	..	12,482	..	..	..	..	61,341
Travelling expenses ..	27,783	(b)	1,162	9,716	(b)	1,993	2,941	43,595
Other ..	..	2,124	..	..	(b)	6,928	10,717	19,769
<i>Total</i> ..	<i>156,031</i>	<i>72,818</i>	<i>38,037</i>	<i>51,183</i>	<i>28,660</i>	<i>22,821</i>	<i>22,258</i>	<i>391,808</i>
4. Parliament—								
A. Upper House:								
President and Chairman of Committees ..	3,683	3,800	1,310	..	2,949	5,766	800	18,308
Allowance to members ..	194,951	28,668	79,137	..	33,770	68,411	34,936	439,873
Railway passes(c) ..	2,220	23,302	(d)9,000	..	1,660	7,313	1,433	44,928
Oversea conferences, etc. ..	13,854	..	..	..	..	..	..	13,854
Other travelling expenses ..	e 14,747	..	..	..	..	..	395	15,142
Postage for members ..	..	..	..	..	306	1,268	..	1,574
B. Lower House:								
Speaker and Chairman of Committees ..	3,374	4,513	1,335	6,003	5,348	5,096	800	26,469
Allowance to members ..	407,332	204,646	156,064	168,897	68,012	116,959	63,264	1,185,174
Railway passes (c) ..	5,030	42,708	(g)	12,082	3,237	11,773	2,259	77,059
Oversea conferences, etc. ..	2,094	..	..	..	..	..	..	2,094
Other travelling expenses ..	e 31,333	2,400	..	5,435	..	d 1,324	1,071	41,563
Postage for members ..	..	5,653	..	9,950	755	2,033	..	18,391
C. Both Houses:								
Government contribution to Members' Superannuation Fund ..	30,142	h 12,715	28,576	10,476	11,713	8,840	..	102,462
Printing—								
<i>Hansard</i> ..	57,396	14,954	26,221	19,592	9,472	13,508	..	141,143
Other ..	56,114	35,704	50,659	8,799	22,308	6,225	16,022	195,831
Reporting Staff—								
Salaries ..	64,665	29,744	28,382	9,861	24,459	24,545	..	181,656
Contingencies ..	3,405	321	600	286	2,899	370	..	7,881
Library—								
Salaries ..	47,171	16,956	8,393	7,825	5,615	100	..	86,060
Contingencies ..	18,420	4,156	2,000	3,274	1,407	475	..	29,732
Salaries of other officers ..	326,345	128,830	81,810	29,385	29,715	38,685	25,076	659,846
Oversea conferences, etc. ..	..	..	..	..	..	..	..	..
Other ..	i 116,840	3,869	8,434	10,485	12,685	8,198	..	160,511
D. Miscellaneous:								
Fuel, light, heat, power, and water ..	22,598	5,054	7,551	3,342	7,241	268	1,800	47,854
Posts, telegraphs, telephones ..	29,675	14,105	880	2,026	3,995	1,012	2,070	53,763
Furniture, stores and stationery ..	32,765	8,095	5,158	3,533	15,364	2,628	..	68,548
Other ..	j 261,524	29,228	9,560	12,664	7,050	k 3,283	13,228	404,080
<i>Total</i> ..	<i>1745648</i>	<i>619,421</i>	<i>505,070</i>	<i>323,915</i>	<i>269,960</i>	<i>328,080</i>	<i>163,154</i>	<i>3,955,248</i>
5. Electoral—								
Salaries ..	414,200	9,642	9,008	19,992	25,552	23,321	13,168	514,883
Cost of elections, contingencies, etc. ..	496,761	153,768	92,414	29,007	23,771	43,615	24,504	863,840
<i>Total</i> ..	<i>910,961</i>	<i>163,410</i>	<i>101,422</i>	<i>48,999</i>	<i>49,323</i>	<i>66,936</i>	<i>37,672</i>	<i>1,378,723</i>
6. Royal Commissions, Select Com- mittees, etc. ..	<i>8,626</i>	..	14,248	..	155	674	4,148	27,851
Grand Total ..	2986399	898,897	725,261	470,289	377,463	450,270	256,856	6,165,435
<i>Cost per head of population</i> ..	<i>6s. 0d.</i>	<i>4s. 10d.</i>	<i>5s. 3d.</i>	<i>6s. 7d.</i>	<i>8s. 4d.</i>	<i>12s. 8d.</i>	<i>15s. 1d.</i>	<i>12s. 5d.</i>

(a) Includes Executive Council except in Tasmania, where duties are performed by Chief Secretary's Department. (b) Not available separately. (c) Actual amounts paid to the respective Railway Departments, except in New South Wales and Western Australia, where the amounts shown represent the value of railway passes as supplied by the Railway Departments. (d) Both Houses. (e) While in Canberra. See also (i). (f) Included with Lower House. (g) Included with Upper House. (h) Lower House only. (i) Conveyance of Members of Parliament and others not elsewhere included. (j) Includes maintenance of Ministers' and Members' rooms, £102,631, and additions, new works, buildings, etc., £30,193. (k) Includes Ex-Ministers' and Ex-Members' Life Passes (Rail), £2,946.

Figures for total cost and cost per head during each of the years 1954-55 to 1958-59 are shown in the next table.

COST OF PARLIAMENTARY GOVERNMENT.

Year.	C'wealth.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
TOTAL.								
(£.)								
1954-55 ..	2,007,013	710,639	535,939	348,458	281,351	325,772	189,699	4,398,871
1955-56 ..	2,532,246	742,753	586,940	474,515	372,493	451,042	224,940	5,384,929
1956-57 ..	2,455,194	769,125	599,355	417,613	324,848	425,524	238,824	5,230,483
1957-58 ..	2,661,604	783,001	660,805	538,365	331,443	434,256	242,064	5,651,538
1958-59 ..	2,986,399	898,897	725,261	470,289	377,463	450,270	256,856	6,165,435

PER HEAD OF POPULATION.

(s. d.)								
1954-55 ..	4 5	4 1	4 4	5 3	7 0	10 0	12 1	9 8
1955-56 ..	5 5	4 3	4 7	7 0	8 11	13 6	14 1	11 7
1956-57 ..	5 2	4 3	4 6	6 1	7 7	12 5	14 8	11 0
1957-58 ..	5 6	4 3	4 11	7 8	7 6	12 5	14 6	11 7
1958-59 ..	6 0	4 10	5 3	6 7	8 4	12 8	15 1	12 5

§ 6. Government Employees.

Information concerning the number of employees of Australian Government Authorities may be found in Chapter XII.—Labour, Wages and Prices.

CHAPTER IV.

LAND TENURE AND SETTLEMENT.

§ 1. Introduction.

For descriptions of the land tenure systems of the several States and the internal Territories see Official Year Book No. 4, pages 235–333, and subsequent issues, in particular No. 22, pages 133–195. Conspectuses of land legislation in force and of the systems of land tenure in the several States have appeared in issues up to and including No. 38, but only a brief summary is given below.

The land legislation in force in the several States may be classified broadly under five major types of land enactments, namely, Crown Lands Acts, Closer Settlement Acts, Mining Acts, Returned Service Personnel Settlement Acts, and Advances to Settlers Acts, but within the groupings there is, of course, a wide variety of individual Acts. In the two internal Territories, the legislation relating to lands is embodied in various ordinances.

In each of the States, there is a Lands Department under the direction of a Minister who is charged generally with the administration of the Acts relating to the alienation, occupation and management of Crown Lands. In the Northern Territory, the Administrator, under the control of the Minister for Territories, is charged with the general administration of the Lands Ordinance and of Crown lands in the Northern Territory. In the Australian Capital Territory, the administration of the Leases Ordinances is in the hands of the Minister for the Interior.

In each of the States, there is also a Mines Department which is empowered under the several Acts relating to mining to grant leases and licences of Crown lands for mining and allied purposes. In the Northern Territory, there are several ordinances relative to mining.

As with land legislation, land tenures may be classified under broad headings; these indicate the nature of the tenure and comprise:—Free Grants and Reservations, Unconditional Purchases of Freehold, Conditional Purchases of Freehold, Leases and Licences under Land Acts, Closer Settlement, Leases and Licences under Mining Acts, and Settlement of Returned Service Personnel. For details of the various particular forms of land tenure within these seven groups in each State, see Official Year Book No. 38, pages 114–116, and earlier issues. Descriptions of the systems operating in the two internal Territories may be found on pages 329–30 and 338 of Official Year Book No. 39.

The following sections contain figures showing the extent of the different tenures in the several States and Territories, together with some general descriptive matter.

§ 2. Free Grants and Reservations.

1. New South Wales.—(i) *Free Grants.* Crown lands may, by notification in the *Gazette*, be dedicated for public purposes and be granted therefor in fee-simple. Such lands may be placed under the care and management of trustees, not less than three nor more than seven in number, appointed by the Minister.

(ii) *Reservations.* Temporary reservations of Crown lands from sale or lease may be made by the Minister.

(iii) *Areas Granted and Reserved.* During 1958–59, 8,681 acres were permanently reserved or dedicated for miscellaneous recreation reserves and similar purposes. The areas reserved at 30th June, 1959, were as follows:—For travelling stock, 5,105,752 acres; pending classification and survey, 4,207,551 acres; forest reserves 2,350,632 acres; water and camping reserves, 833,144 acres; mining reserves, 1,118,241 acres; for recreation and parks, 346,092 acres; other reserves, 6,939,318 acres; total, 20,900,730 acres.

2. Victoria.—(i) *Free Grants.* The Governor may grant, convey or otherwise dispose of Crown lands for public purposes. If such lands were permanently reserved for public purposes prior to 18th October, 1929.

(ii) *Reservations.* The Governor may temporarily or permanently reserve from sale, lease or licence any Crown lands required for public purposes.

(iii) *Areas Granted and Reserved.* During 1959, 111 acres were granted without purchase. The areas both temporarily and permanently reserved at the end of 1959 were as follows:—For roads, 1,644,434 acres; water reserves, 317,295 acres; agricultural colleges, etc., 8,434 acres; forest and timber reserves, 5,707,455 acres; reserves in the mallee, 410,000 acres; other reserves, 536,828 acres; total, 8,624,446 acres.

(iv) *Revoking of Agricultural Reservations.* Under the Agricultural Colleges Act 1944, the land on which the agricultural colleges and experimental farms at Longerenong (2,386 acres) and Dookie (6,048 acres) are established was permanently reserved as sites for the purposes of State Agricultural Colleges and the remainder of the land previously reserved has become unalienated for treatment as such under the Lands Act (*see also* § 5, para. 3).

3. *Queensland.*—(i) *Free Grants.* The Governor may grant in trust any Crown land which is or may be required for public purposes. Under the Irrigation Acts, land to be used for the purpose of any undertaking under the Acts may be vested in fee-simple in the Commissioner of Irrigation and Water Supply.

(ii) *Reservations.* The Governor may reserve from sale or lease, either temporarily or permanently, any Crown land which is or may be required for public purposes. Reserved lands may be placed under the control of trustees who are empowered to lease them for not more than 21 years with the approval of the Minister.

Under the State Forests and National Parks Acts, the Governor may permanently reserve any Crown lands and declare them to be a State Forest or a National Park.

(iii) *Areas Granted and Reserved.* During 1959, 1,882,704 acres were set apart as reserves and the area in reserves cancelled was 1,866,054 acres. The total area reserved, including roads, at the end of 1959 was as follows:—Timber reserves, 3,056,233 acres; for State forests and national parks, 5,953,547 acres; aboriginal reserves, 6,537,676 acres; for streets, surveyed roads and stock routes, 3,739,974 acres; general reserves, 5,603,347 acres; total, 24,890,777 acres.

4. *South Australia.*—(i) *Free Grants.* The Governor may dedicate Crown lands for any public purpose and grant the fee-simple of such lands, with the exception of foreshores and lands for quays, wharves or landing-places, which are inalienable in fee-simple from the Crown.

(ii) *Reservations.* The Governor may reserve Crown lands for the use and benefit of aboriginals, military defence, forest reserves, railway stations, park lands or any other purpose that he may think fit.

(iii) *Areas Granted and Reserves.* During 1958–59, free grants were issued for an area of 120 acres, and reserves comprising 1,879 acres were proclaimed. At 30th June, 1959, the total area of surveyed roads, railways and other reserves was 22,742,621 acres, including 18,210,620 acres set apart as aboriginal reserves.

5. *Western Australia.*—(i) *Free Grants.* The Governor may dispose of, in such manner as for the public interest may seem best, any lands vested in the Crown for public purposes, and may grant the fee-simple of any reserve to secure the use thereof for the purpose for which such reserve was made.

(ii) *Reservations.* The Governor may reserve any lands vested in the Crown for public purposes. Areas not immediately required may be leased by the Governor for periods up to 10 years. Reserves may be placed under the control of a local authority or trustees, with power to lease them for a period not exceeding 21 years, or may be leased for 99 years. Temporary reserves may also be proclaimed.

(iii) *Areas Granted or Reserved.* During the year ended 30th June, 1959, approximately 1,596,844 acres were reserved for various purposes. At 30th June, 1959, the total area reserved was 59,806,861 acres, comprising State forests, 4,323,902 acres, timber reserves, 1,772,610 acres and other reserves 53,710,349 acres.

6. *Tasmania.*—(i) *Free Grants.* No mention is made in the Crown Lands Act respecting free grants of land, and it is expressly stated that no lands may be disposed of as sites for religious purposes except by way of sale under the Act. Under the Returned Soldiers' Settlement Act 1916, returned soldiers who applied prior to 31st March, 1922, were eligible to receive free grants of Crown land not exceeding £100 each in value, but these grants were conditional on the land being adequately improved.

(ii) *Reservations.* The Governor in Council may except from sale or lease, and reserve to Her Majesty any Crown land for public purposes, and vest for such term as he thinks fit any land so reserved in any person or corporate body. Any breach or non-fulfilment of the conditions upon which such land is reserved renders it liable to forfeiture. A school allotment may also be reserved.

7. Northern Territory.—(i) *Reservations.* The Governor-General may resume for public purposes any Crown lands not subject to any right of, or contract for, purchase, and may reserve, for the purpose for which they are resumed, the whole or any portion of the lands so resumed.

(ii) *Areas Reserved.* The total area of reserves at 30th June, 1959, was 48,985,313 acres.

8. Summary.—The following table shows the total areas reserved in each State, and the grand totals, for the years 1955 to 1959:—

AREAS RESERVED.
(’000 Acres.)

		N.S.W. (a)	Victoria. (b)	Q’ld. (b)	S. Aust. (a)	W. Aust. (a)	Tas. (a)	Nor. Terr. (a)	Total.
1955	..	20,865	8,631	25,939	21,863	55,224	4,129	47,544	184,195
1956	..	21,261	8,634	26,067	21,867	55,629	4,130	47,928	185,516
1957	..	21,353	8,649	26,097	22,641	56,938	(c)	47,928	d 183,606
1958	..	21,118	8,621	24,884	22,740	58,310	(c)	47,985	d 183,658
1959	..	20,901	8,624	24,891	22,742	59,807	(c)	48,985	d 185,950

(a) At 30th June.

(b) At 31st December.

(c) Not available.

(d) Excludes Tasmania.

§ 3. Unconditional Purchases of Freehold.

1. New South Wales.—(i) *Auction Purchases.* Crown lands, not exceeding in the aggregate 200,000 acres in any one year, may be sold by public auction in areas not exceeding half-an-acre for town lands, 20 acres for suburban lands, and 640 acres for country lands, at the minimum upset price of £8, £2 10s., and 15s. an acre respectively. At least 10 per cent. of the purchase-money must be paid at the time of sale, and the balance within three months, or the Minister may allow the payment of such balance to be deferred for a period not exceeding ten years, 4 per cent. interest being charged. Town blocks in irrigation areas may also be sold by auction.

(ii) *After-auction Purchases.* In certain cases, land offered at auction and not sold may be purchased at the upset price. A deposit in accordance with the terms and conditions under which the land was previously offered must be lodged, and, if the application be approved by the Minister, the balance of purchase money is payable as required by the specified terms and conditions.

(iii) *Special Purchases.* In certain circumstances, land may be sold in fee-simple, the purchaser paying the cost of survey and of reports thereon, in addition to the purchase money as determined by the local Land Board.

(iv) *Improvement Purchases.* The owner of improvements in land in authorized occupation by residence under any Mining Act or the Western Lands Act of land within a gold-field or mineral field may purchase such land without competition at a price determined by the local Land Board, but at not less than £8 an acre for town lands or £2 10s. an acre for other lands. The area must not exceed one-quarter of an acre within a town or village, or two acres elsewhere, and no person may purchase more than one such area within three miles of a similar prior purchase by him.

(v) *Road Purchases.* Land from roads that are closed may, with certain exceptions be sold to the owners of adjoining lands at a value determined by the local Land Board.

(vi) *Areas Sold.* During the year ended 30th June, 1959, the total area sold was 1,759 acres, of which 53 acres were sold by auction and two acres as after auction purchases, while 27 acres were sold as improvement purchases, 1,602 acres as road purchases and 75 acres as special purchases.

2. Victoria.—(i) *General.* Lands, not exceeding 100,000 acres in any one year, specially classed for sale by auction, may be sold by auction in fee-simple at an upset price of not less than £1 an acre. The purchaser must pay the survey fee at the time of the sale, together with a deposit of 12½ per cent. of the whole price; the residue is payable in equal half-yearly instalments with interest. Any unsold land in a city, town or borough area, areas specially classed for sale, isolated pieces of land not exceeding 150 acres in area, and sites for churches or charitable purposes, if not more than three acres in extent, may be sold by auction on the same terms. Swamp or reclaimed lands may also be sold by auction, subject to the condition that the owner keeps open all drains, etc., thereon.

(ii) *Areas Sold at Auction and by Special Sales.* During 1959, a total of 2,031 acres was disposed of under this tenure, 1,500 acres being country lands and 531 acres town and suburban lands.

3. *Queensland.*—From 1917 to 1929, the law precluded land being made available for any class of selection which gave the selector the right to acquire the freehold title. Amending legislation giving power to make land available under freehold tenures was passed in 1929. This provision was repealed in 1932, but restored again in 1957.

4. *South Australia.*—(i) *Sales by Auction.* The following lands may be sold by auction for cash:—(a) special blocks; (b) Crown lands which have been offered for lease and not taken up within two years; (c) town lands; and (d) suburban lands which the Governor excepts from the operations of the Land Board. A purchaser must pay 20 per cent. of the purchase money in cash, and the balance within one month or within such extended time as the Commissioner of Crown Lands may allow. Town lands may be sold subject to the condition that they cannot be transferred or mortgaged within six years without the consent of the Commissioner. If the Commissioner of Crown Lands so determines, town lands may also be offered at auction on terms and the buyer may, at his option, purchase the lands for cash or on agreement for sale and purchase.

(ii) *Areas Sold, etc.* During the year ended 30th June, 1959, the area of town lands and special blocks sold by auction was 45 acres. In addition, 81,054 acres were sold at fixed prices, and purchases on credit of 20,254 acres were completed, making a total of 101,353 acres.

5. *Western Australia.*—(i) *Sales by Auction.* Town, suburban and village lands may be sold by auction after being surveyed into lots and notified in the *Gazette*. They may also be disposed of after being exempted from auction or after being passed in at auction. Ten per cent. of the purchase-money must be paid in cash, together with the value of any improvements, and the balance in four equal quarterly instalments. Suburban land must be fenced within two years, and no Crown grant may be issued until the land is fenced.

(ii) *Areas Sold.* During the year ended 30th June, 1959, the area of town and suburban allotments sold by auction was 617 acres in 293 allotments.

6. *Tasmania.*—(i) *Sales by Auction.* Lands may be sold by auction.

(ii) *After-Auction Sales.* Lands, which, after having been offered at auction, have not been sold, may be sold at the upset price by private contract.

(iii) *Sales of Land in Mining Towns.* Any person being the holder of a residence licence or a business licence who shall be in lawful occupation of any residence area or business area, and who shall be the owner of buildings and permanent improvements upon such land of a value equal to or greater than the upset price of such area, shall be entitled to purchase such area at the upset price at any time prior to the day on which such area is to be offered for sale as advertised. The upset price for such area shall be determined by valuation, excluding the value of improvements, cost of survey, and of grant deed. The area which may be so purchased must not exceed one-quarter of an acre.

§ 4. Conditional Purchases of Freehold.

1. *General.*—The various methods of obtaining Crown lands by conditional purchase in the several States are given in some detail in preceding issues of the Official Year Book (*see* No. 22, pp. 141-9).

2. *New South Wales.*—At 30th June, 1959, the total number of conditional purchases of various types in existence was 30,156 covering an area of 9,987,491 acres. During 1958-59, applications received for conditional purchases numbered six, while 26, with an area of 9,365 acres, were confirmed; during the year, deeds were issued for 636,352 acres, bringing the total acreage for which deeds had been issued to 36,951,828 at the end of the year. These figures exclude 582 conversions from other tenures comprising 103,030 acres.

3. *Victoria.*—The area purchased conditionally in 1959, excluding selections in the Mallee Country was 17,270 acres, all with residence. The number of selectors was 60. In the Mallee, 4,512 acres were purchased conditionally in 1959. The number of selectors was eight.

4. *Queensland.*—The following selections were made freehold during 1958:—Agricultural farms, 21,085 acres, prickly pear selections, 15,069 acres, and prickly pear development selections, 10,766 acres. During 1959, an area of 12,849 acres was taken up as Agricultural farms.

5. South Australia.—During 1958–59, 5,107 acres were allotted under agreements to purchase, comprising Eyre Peninsula Railway Lands, 25 acres, and other Crown Lands 5,082 acres.

6. Western Australia.—During the year ended 30th June, 1959, the number of holdings conditionally alienated was 487, all of which were conditional purchases by deferred payments, involving an area of 839,159 acres. Under the heading “deferred payments”, are included conditional purchases of grazing lands.

In addition, Crown grants were issued during 1958–59 for the following selections, the prescribed conditions having been complied with:—Free homestead farms, 10,566 acres, and conditional purchases, 586,101 acres.

7. Tasmania.—During 1958–59, Crown grants were issued for 15,987 acres. The total area sold conditionally was 3,088 acres, comprising selections for purchase, 2,653 acres, and town and suburban allotments, 435 acres. The numbers of applications confirmed were 129 for country selections and 91 for town and suburban allotments.

§ 5. Leases and Licences under Land Acts.

1. General.—Information regarding the methods of obtaining leases and licences of Crown lands in the several States and Territories was given in earlier issues of the Official Year Book (see No. 22, pp. 149–63).

2. New South Wales.—At 30th June, 1959, the total area of leases and licences under the control of the Department of Lands, the Water Conservation and Irrigation Commission and the Western Lands Commission was 114,800,891 acres, of which 77,992,947 acres were held under the Western Lands Act, 28,384,685 acres under perpetual lease and 8,423,259 acres under other forms of lease, licence and permissive occupancy. The following table shows the areas held under various descriptions of leases and licences at 30th June, 1959:—

AREAS OCCUPIED UNDER LEASE OR LICENCE AT 30th JUNE, 1959, NEW SOUTH WALES.(a)
(Acres.)

Particulars.	Area.	Particulars.	Area.
<i>Crown Lands or Closer Settlement Acts</i>		<i>Crown Lands or Closer Settlement Acts—continued.</i>	
Occupational licences	567,010	Suburban holdings	63,799
Conditional leases	10,340,844	Group purchase leases	222,433
Conditional purchase leases	119,189	Irrigation areas	198,237
Settlement leases	2,587,773	Other leases(b)	173,299
Annual leases	469,033	<i>Western Lands Act.</i>	
Special leases	1,374,207	Conditional leases	130,880
Residential leases	4,005	Leases being issued—occupation	
Permissive occupancies	2,623,383	licences	60,027
Prickly pear leases	86,933	Perpetual leases	67,740,208
Crown leases	7,051,067	Other long-term leases	9,835,673
Homestead farms	4,965,098	Permissive occupancies	198,096
Homestead selections and grants	1,690,026	Preferential occupation licences	28,063
Closer settlement leases	3,027,016		
Settlement purchase leases	1,044,592	Total	114,800,891

(a) Excludes mining leases and permits, forest leases, and occupation permits. (b) Includes leases outside irrigation areas, controlled by the Water Conservation and Irrigation Commission—159,491 acres.

3. Victoria.—The area of Crown lands occupied under leases and licences at 31st December, 1959, was as follows:—Grazing licences—other than Mallee, 4,058,229 acres; Mallee, 2,008,376 acres; auriferous lands licences, 1,929 acres; perpetual leases—other than Mallee, 21,658 acres; Mallee, 1,066,274 acres; swamp lands leases, 62 acres; agricultural college lands, 29,926 acres; total, 7,186,454 acres.

4. Queensland.—During 1959, the areas taken up consisted of 9,667,840 acres as pastoral leases, 1,763,049 acres as grazing selections and 31,948 acres as perpetual lease selections. The area occupied under lease or licence, excluding mining leases, at 31st December, 1959, was as follows:—Pastoral leases, 242,592,640 acres; occupation licences, 17,749,120 acres; grazing selections and settlement farm leases, 91,781,894 acres; special purpose leases—Crown land, 434,467 acres; reserves, 2,073,011 acres; perpetual lease (including prickly pear) selections, 6,844,813 acres; auction perpetual leases, 41,883 acres; forest grazing leases (reserves), 628,480 acres; total, 362,146,308 acres.

5. **South Australia.**—The total area, including repurchased lands held under lease or licence except mining lease and licence, at 30th June, 1959, was 138,304,183 acres of which pastoral leases, 115,715,484 acres, constituted the major portion.

6. **Western Australia.**—At 30th June, 1959, the total area held under lease or licence issued by the Lands Department amounted to 223,475,997 acres, of which 217,655,338 acres were under pastoral lease.

7. **Tasmania.**—Crown lands leased at 30th June, 1959, for other than mining purposes amounted to 1,624,548 acres of which 1,023,140 acres were leased for pastoral purposes.

8. **Northern Territory.**—At 30th June, 1958, the total area under lease, etc., was 174,651,515 acres of which pastoral leases accounted for 139,696,635 acres and other leases, licences and mission stations, 34,954,880 acres.

9. **Australian Capital Territory.**—Under the terms of the City Area Leases Ordinance 1936–1957, each block is leased for a period of 99 years at a rental of five per cent. per annum of the unimproved capital value as assessed by the Commonwealth. The number of leases granted under this Ordinance to 30th June, 1959, (excluding leases surrendered and determined) was 4,475 representing an unimproved value of £1,894,430. Auction sales of city leaseholds are described in Official Year Book No. 22, page 599. During the year ended 30th June, 1959, 511 leases were granted for residential purposes and three for business purposes.

Fifteen leases under the Church Lands Leases Ordinance, which requires the lessees to submit a definite building programme within a specified period, and one lease under the Church of England Lands Ordinance, have been granted for church purposes. A further 34 leases have been granted for either church or scholastic purposes under the various Ordinances.

The total area held under lease and licence for grazing, agricultural, dairying and other purposes (including the Jervis Bay area) amounted to 292,824 acres at 30th June, 1959.

10. **Summary.**—The following table shows particulars of the land held in each State under lease or licence for purposes other than mining and forestry, the total under lease or licence in the Territories, and the grand totals, for the years, 1955 to 1959:—

**AREAS OCCUPIED UNDER LEASE OR LICENCE OTHER THAN MINING
AND FORESTRY.
(’000 Acres.)**

Year.	N.S.W. (a)	Vic. (b)	Q’land. (b)	S. Aust. (a)	W. Aust. (a)	Tas. (a)	N.T. (a) (c)	A.C.T. (a)(c)(d)	Total.
1955 ..	114,311	6,502	363,870	137,461	204,782	2,487	181,165	321	1,010,899
1956 ..	114,231	6,175	363,093	139,640	212,380	2,466	177,021	314	1,015,320
1957 ..	113,947	5,851	363,473	139,727	212,831	1,576	177,028	296	1,014,729
1958 ..	114,451	6,901	364,681	138,370	217,746	1,504	174,399	293	1,018,345
1959 ..	114,801	7,186	362,146	138,304	223,476	1,624	174,697	293	1,022,527

(a) At 30th June. (b) At 31st December. (c) Leases and licences for all purposes.
(d) Includes Jervis Bay area.

§ 6. Leases and Licences under Mining Acts.

1. **General.**—Information regarding the various forms of leases and licences under Mining Acts in the several States and the Northern Territory is given in preceding issues of the Official Year Book, (see No. 22, pp. 170–7). The following paragraphs contain particulars of operations during the year 1958–59 or 1959 and of areas occupied at the end of the year, under the various forms of lease, licence, etc., issued for mining purposes.

2. **New South Wales.**—At 30th June, 1959, total areas occupied under Mining Acts were as follows:—Gold-mining, 2,973 acres; mining for other minerals, 187,342 acres; authorities to prospect, 200,969 acres; other purposes, 8,215 acres; total, 399,499 acres.

3. **Victoria.**—Areas occupied at the end of 1959 were as follows:—Gold-mining, 13,401 acres; coal, 11,820 acres; mineral search licences, 9,415 acres; other purposes, 5,462 acres; total, 40,098 acres. In addition, 31,653,120 acres were occupied under petroleum prospecting licences and petroleum exploration permits.

4. **Queensland.**—During 1959, there were 3,011 miners' rights and one business licence issued. Areas taken up during 1959 totalled 665,474 acres, of which 17,022 acres were for mining for minerals other than gold and 568,600 acres were occupied under petroleum prospecting permits. Total areas occupied at the end of 1959 were as follows:—Gold-mining, 2,483 acres; mining for other minerals, 136,468 acres; miners' homesteads, 428,665 acres; petroleum prospecting, 696,600 acres; coal prospecting, 81,273 acres; total, 1,345,489 acres. The area of land held under lease only was 567,616 acres.

5. **South Australia.**—Areas taken up under Mining Acts during 1958–59 totalled 43,447,711 acres, including claims, 4,644 acres, mineral and miscellaneous leases, 693,607 acres, gold leases 20 acres and oil licences, 42,749,440 acres. Total areas occupied at 30th June, 1959, were as follows:—Goldmining, 659 acres; other mineral and miscellaneous leases, 769,109 acres; claims, 14,110 acres; oil licences, 170,384,640 acres; other purposes, 25 acres; total, 171,168,543 acres.

6. **Western Australia.**—Areas taken up during 1959 under Mining Acts totalled 19,637 acres, including gold-mining, 11,692 acres and mining for other minerals, 7,881 acres. Total areas occupied at the end of 1959 were as follows:—Gold-mining, 29,631 acres; mining for other minerals, 96,032 acres; other purposes, 38,362 acres; total, 164,025 acres. Of the total, 2,917 acres were held under lease, the balance being taken up under licences.

7. **Tasmania.**—During 1959, the number of leases issued was 99, covering 8,025 acres. Of these, 33, covering 826 acres, were for tin mining. Total areas occupied at the end of 1959 were as follows:—Gold-mining, 690 acres; coal-mining, 9,965 acres; mining for other minerals, 25,290 acres; other purposes, 9,574 acres; total, 45,519 acres.

8. **Northern Territory.**—At 30th June, 1959, the number and acreage of holdings under mining leases and tenements were as follows:—Gold-mining leases, 250 (4,060 acres); other minerals leases, 381 (10,133 acres); dredging areas, 11 (2,319 acres); gold and other mineral prospecting areas, 23 (245 acres); business and residence areas, 36 (144 acres); other purposes, 159 (8,115 acres); total, 860 (25,016 acres).

9. **Summary.**—(a) *Mining Leases etc., (other than oil prospecting licences).* The following table shows the total areas occupied under Mining Acts in each State at the end of the years 1955 to 1959:—

AREAS OCCUPIED UNDER MINING ACTS.

(Acres.)

Year.	N.S.W. (a)	Victoria.	Q'land. (b)	S. Aust. (a) (b)	W. Aust. (c)	Tasmania. (b)	Total. (d)
1955 ..	8,151,778	55,544	555,996	773,816	159,891	30,408	9,727,433
1956 ..	13,924,407	37,723	570,384	770,618	151,916	33,178	15,488,226
1957 ..	326,932	36,129	587,067	779,881	162,199	37,625	1,929,833
1958 ..	385,816	42,563	649,842	795,856	164,017	37,494	2,075,588
1959 ..	399,499	40,098	648,889	783,903	164,025	45,519	2,081,933

(a) Year ended 30th June.

(b) Excludes lands held under miners' rights and dredging claims.

(c) Excludes holdings under miners' rights.

(d) Excludes Northern Territory.

(b) *Oil Prospecting Licences.* The following table shows for each year from 1955 to 1959 the areas occupied in each State under authorities to prospect or explore for petroleum or other oils:—

AREAS OCCUPIED UNDER AUTHORITIES TO PROSPECT FOR PETROLEUM.

('000 Acres.)

Year.	N.S.W. (a)	Victoria.	Q'land.	S. Aust. (a)	W. Aust.	Tasmania.	N. Terr.	Total.
1955 ..	13,984	3,851	576	136,480	3,857	..	(b)	(c) 158,748
1956 ..	32,237	3,861	192	141,944	4,243	..	(b)	(c) 182,477
1957 ..	34,739	2,940	704	141,944	4,228	..	(b)	(c) 184,555
1958 ..	37,251	2,805	832	127,635	4,607	..	(b)	(c) 173,130
1959 ..	58,205	31,653	697	170,385	4,805	..	3,693	269,438

(a) Year ended 30th June.

(b) Not available.

(c) Excludes Northern Territory.

§ 7. Closer Settlement.

1. **General.**—Particulars regarding the methods of acquisition and disposal of land for closer settlement in the several States are given in issues of the Official Year Book up to No. 22 (*see* No. 22, pp. 163–9) and the results of the operations of the several schemes have appeared in subsequent issues in considerable detail. In more recent years, however, the amalgamation, in some States, of closer settlement records with those of other authorities has made it impossible to obtain up-to-date figures for those States and for Australia as a whole, although aggregations of State totals as at the latest dates available have been published as rough approximations intended to convey some idea of the extent of the schemes throughout Australia. Particulars in this issue are restricted to a summary only of the position in each State at the latest date available.

2. **New South Wales.**—From the inception of closer settlement in 1905 to 30th June, 1959, 2,658 estates totalling 7,112,623 acres had been purchased by the Crown at a cost of £34,718,063 for purposes of closer settlement of civilians and returned service personnel.

Closer settlement is now being effected entirely under perpetual leasehold tenure (closer settlement leases).

3. **Victoria.**—The Closer Settlement Commission was abolished as from 31st December, 1938, and land settlement was placed under the control of the Department of Lands and Survey. On 31st March, 1939, all Closer Settlement and Discharged Soldiers' accounts were amalgamated, the settlers' accounts adjusted and the new debt made payable over an extended period. Particulars of the operations under the provisions of the Closer Settlement Acts to 30th June, 1938, the latest date for which separate details are available, were given in earlier issues of the Official Year Book (*see* No. 42, p. 98).

4. **Queensland.**—Separate records relating to the closer settlement of re-purchased land are no longer kept by the Land Administration Board, and the operations under this heading are now included with "Leases and Licences under Land Acts." Details of the position at 31st December, 1934, the latest date for which the information is available, were given in earlier issues of the Official Year Book, (*see* No. 42, p. 98).

5. **South Australia.**—The total area re-purchased for closer settlement at 30th June, 1959 was 948,885 acres, at a cost of £2,865,200. Included in these figures are 51,872 acres purchased for £185,285, and afterwards set apart for returned service personnel, 3,214 acres reserved for forest and waterworks purposes the purchase-money being £16,185, and also 26,563 acres of swamp and other lands, which were purchased for £111,850, in connexion with reclamation of swamp-lands on the River Murray. Of the total area, 817,835 acres have been allotted to 2,797 persons.

6. **Western Australia.**—The total area acquired for closer settlement up to 30th June, 1959 was 3,084,950 acres, costing £4,470,168. Particulars of operations under the Act for the year ended 30th June, 1959, are as follows:—Area selected during the year, 83,813 acres; number of farms, etc., allotted to date, 2,566; total area occupied to date, 2,247,760 acres; area set aside for roads, reserves, etc., and balance available for selection, 837,190 acres.

7. **Tasmania.**—Up to 30th June, 1959, 38 areas had been opened up for closer settlement, the total purchase-money paid by the Government being £371,548 and the total area acquired amounting to 104,554 acres, including 12,149 acres of Crown lands. The number of farms occupied at 30th June, 1959, was 62.

§ 8. Settlement of Returned Service Personnel.

1. **War Service Land Settlement Scheme.**—(i) *General.* The War Service Land Settlement Scheme provides for the settlement on the land of eligible ex-servicemen from the 1939–45 War and the Korea-Malaya operations. Finance for capital expenditure under the scheme in South Australia, Western Australia and Tasmania and for special loans to New South Wales and Victoria is provided through Loan (War Service Land Settlement) Acts. Finance for other aspects of the Scheme in all States is provided by annual parliamentary appropriation. The States Grants (War Service Land Settlement) Act 1952 provides that the responsible Commonwealth Minister may make grants of financial assistance to the States under such terms as he may from time to time determine.

New South Wales, Victoria and Queensland agreed, at the inception of the Scheme, to find their own finance for the acquisition and development of properties. In 1954, Queensland abandoned the Scheme and made available for general settlement all unallotted lands held under it.

In an effort to hasten the settlement of qualified applicants in New South Wales and Victoria, the Commonwealth, between 1st July, 1955, and 30th June, 1959, agreed to make available to New South Wales and Victoria repayable loans with a maximum of £2 million

to each State in any one year. The Commonwealth subsequently agreed to a request from the States that any surplus of the total finance the Commonwealth was prepared to make available for the year 1958-59 could be spent by the States in subsequent years. The extent of these loans was dependent on the amounts expended by the States from their own funds and can be briefly summarized as follows:—Total advances made by the Commonwealth were:—New South Wales, £6,770,833; Victoria, £7,198,703.

For more detailed information about the agreements and the methods of operation and administration of the Scheme, see Official Year Book No. 37, pages 113-8. Issue No. 39 contains a brief general description of the Scheme.

(ii) *Summary of Operations to 30th June, 1960.* The following table shows the operations of the War Service Land Settlement Scheme in each State up to 30th June, 1960:—

WAR SERVICE LAND SETTLEMENT.

SUMMARY TO 30TH JUNE, 1960.

State.	Land Acquired.	Farms Allotted.		Farms in Course of Development.		Other.
		No.	Acres.	No.	Acres.	
New South Wales—(a)	Acres.	No.	Acres.	No.	Acres.	Acres.
Western Lands ..	6,060,331	212	6,060,331	..	..	..
Subdivision—						
Irrigation ..	186,299	337	186,299	..	..	..
Dry ..	1,278,702	1,124	1,278,702	..	..	..
Promotions—						
Irrigation ..	92,000	136	92,000	..	..	..
Dry ..	1,459,802	1,238	1,459,802	..	..	..
<i>Total, New South Wales</i>	<i>9,077,134</i>	<i>3,047</i>	<i>9,077,134</i>	..	..	..
Victoria ..	61,180,955	3,021	1,172,280	27	8,675	..
Queensland ..	398,524	470	218,640	..	..	(c) 179,884
South Australia ..	754,770	1,009	656,456	16	24,000	(d) 74,314
Western Australia ..	62,106,682	917	1,724,397	138	382,285	..
Tasmania ..	(b) 310,332	510	277,601	99	32,731	..
<i>Total ..</i>	<i>13,828,397</i>	<i>8,974</i>	<i>13,126,508</i>	<i>280</i>	<i>447,691</i>	<i>254,198</i>

(a) In New South Wales, properties are regarded by the State as being allotted at the date of acquisition. (b) Land previously approved now to be developed for closer settlement accounts for difference in area to that shown in earlier years. (c) War Service Land Settlement was discontinued in 1954, and unallotted lands were made available for general settlement. (d) Crown lands, title to which has not been finalized pending survey for exact area.

(iii) *Expenditure.* The following table shows a dissection of the Commonwealth expenditure on War Service Land Settlement to 30th June, 1960:—

WAR SERVICE LAND SETTLEMENT (1939-45 WAR AND KOREA/MALAYA OPERATIONS): COMMONWEALTH EXPENDITURE TO 30th JUNE, 1960.

(£.)

Advances to States.	N.S.W.	Vic.	Qld.	S. Aust.	W. Aust.	Tas.	Total.
For acquisition of land ..	..	..	..	3,439,771	3,482,656	2,480,750	9,403,177
For development and improvement of land ..	..	..	..	13,242,809	18,557,597	12,195,294	43,995,700
Special Loans ..	6,770,833	7,198,703	..	..	..	..	13,969,536
Commonwealth contributions to excess cost over valuation ..	279,769	4,110,933	116,105	855,600	557,722	391,337	6,311,466
To provide credit facilities to settlers ..	..	..	..	5,909,561	13,600,410	3,779,814	23,289,785
For remission of settlers' rent and interest ..	421,292	166,155	36,214	113,012	397,800	117,929	1,252,402
For payment of living allowances to settlers ..	1,009,971	1,124,000	163,136	334,242	420,919	133,259	3,185,527
For operation and maintenance of irrigation projects ..	..	..	..	655,274	16,611	1,751	673,636
Loss on advances ..	14,428	1,847	255,582	6,824	114,576	1,968	395,225
Cost of administration of credit facilities ..	..	..	..	207,393	543,151	92,666	843,210
<i>Total ..</i>	<i>8,496,293</i>	<i>12,601,638</i>	<i>571,037</i>	<i>24,764,486</i>	<i>37,691,442</i>	<i>19,194,768</i>	<i>103,319,664</i>

Repayments of expenditure to 30th June, 1960, on the acquisition, development and improvement of land amounted to £9,140,905, and on the provision of credit facilities to settlers to £10,976,479, so that the total expenditure was reduced by £20,117,384 to £83,202,280. In addition, miscellaneous receipts in South Australia, Western Australia and Tasmania to 30th June, 1960, amounted to £4,443,889.

2. Loans and Allowances (Agricultural Occupations) Scheme.—(i) *General*. Full details of the measures taken to provide for the re-establishment of ex-servicemen in rural occupations were given in Official Year Book No. 37, pages 117-8.

(ii) *Loans (Agricultural Occupations)*. The following table shows particulars for each State and certain Territories to 30th June, 1960:—

LOANS (AGRICULTURAL OCCUPATIONS) : SUMMARY TO 30th JUNE, 1960.

State.	Applications.			Loans Approved.			Advanced by Common- wealth Treasury to Lending Authorities.	Advanced by Lending Authorities to Applicants. (b)
	Re- ceived.	Ap- proved.	Refused, With- drawn or Not Yet Approved	Gross Amount.	Net Approvals.(a)			
					Applica- tions.	Amount.		
				£	£	£	£	£
New South Wales	7,778	6,303	1,475	4,960,417	5,484	4,254,353	2,660,000	4,282,191
Victoria ..	4,818	3,350	1,468	2,176,011	3,090	2,016,960	1,040,000	1,796,854
Queensland ..	2,379	1,975	404	1,097,690	1,610	891,584	610,000	874,154
South Australia ..	2,136	1,288	848	1,004,548	1,225	962,934	465,000	827,162
Western Australia	3,201	2,290	911	2,159,228	2,153	2,025,885	1,111,450	1,965,815
Tasmania ..	1,124	758	366	473,746	728	454,885	300,400	405,335
Northern Territory	34	15	19	11,945	11	10,148	10,148	10,148
New Guinea ..	17	8	9	7,272	6	6,772	6,772	6,772
Norfolk Island ..	3	1	2	1,000	..	..	..	..
Total ..	21,490	15,988	5,502	11,891,857	14,307	10,623,521	6,203,770	10,168,431

(a) After deduction of loans declined after approval—£1,268,336.

(b) Includes advances from principal repaid by borrowers.

These loans are made to eligible ex-servicemen for the purchase of land, effecting improvements on land, the acquisition of tools of trade, livestock, plant or equipment, the establishment of a co-operative business with other persons, reduction or discharge of a mortgage, bill of sale, etc.

(iii) *Allowances (Agricultural Occupations)*. The following table shows details for each State and New Guinea to 30th June, 1960:—

ALLOWANCES (AGRICULTURAL OCCUPATIONS) : SUMMARY TO 30th JUNE, 1960.

State.	Applications.			Advanced by Common-wealth Treasury to Bank.	Allowances Paid.
	Received.	Approved.	Rejected, Withdrawn or Not Yet Approved.		
				£	£
New South Wales ..	4,078	3,625	453	587,000	580,056
Victoria ..	3,068	2,311	757	296,500	296,013
Queensland ..	3,044	2,515	529	477,851	477,657
South Australia(a) ..	2,265	1,756	509	325,000	324,609
Western Australia ..	3,020	2,610	410	480,800	480,788
Tasmania ..	634	523	111	116,150	116,114
New Guinea ..	5	4	1	1,360	1,360
Total ..	16,114	13,344	2,770	2,284,661	2,276,597

(a) Includes allowances paid to four ex-servicemen in the Northern Territory.

These allowances are payable only in respect of the period during which the income derived from the occupation by the ex-serviceman concerned is considered inadequate.

3. War Service Land Settlement Division.—Total Expenditure.—The following table shows details of the total expenditure on various projects by the War Service Land Settlement Division from the commencement of operations to 30th June, 1960.

**COMMONWEALTH WAR SERVICE LAND SETTLEMENT DIVISION:
TOTAL EXPENDITURE TO 30th JUNE, 1960.
(£.)**

	N.S.W.	Vic.	Qld.	S. Aust.	W. Aust.	Tas.	N.T.	N.G.	Total.
War Service Land Settlement expenditure from Revenue or Loan Funds ..	8,496,293	12,601,638	571,037	24,764,486	37,691,442	19,194,768	..	..	103,319,664
Agricultural Loans(a) ..	4,282,191	1,796,854	874,154	827,162	1,965,815	405,335	10,148	6,772	10,168,431
Agricultural Allowances ..	587,000	296,500	477,851	325,000	480,800	116,150	..	1,360	2,284,661
Administration Expenses ..	695,092	156,112	70,024	80,737	352,801	43,711	..	..	1,398,477
Rural Training ..	329,274	501,788	106,211	189,877	226,340	108,426	..	..	1,461,916
Total ..	14,389,850	15,352,892	2,099,277	26,187,262	40,717,198	19,868,390	10,148	8,132	118,633,149

(a) Includes expenditure on new loans of moneys repaid by borrowers.

The following summary sets out the net expenditure to 30th June, 1960, after allowing for miscellaneous receipts and repayments:—

Miscellaneous Receipts to 30th June, 1960—	£
War Service Land Settlement	4,443,889
Agricultural Loans and Allowances	6,170,685
Rural Training	148,836
Total	10,763,410
Repayments, War Service Land Settlement Loans	20,117,384
Total Receipts and Repayments	30,880,794
Total Expenditure to 30th June, 1960	118,633,149
less Receipts and Repayments	30,880,794
Net Expenditure to 30th June, 1960	87,752,355

§ 9. Advances to Settlers.

1. General.—A detailed statement regarding the terms and conditions governing advances to settlers in the several States and the Northern Territory may be found in earlier issues of the Official Year Book (*see* No. 22, pp. 179–86).

The summaries of loans and advances in the following paragraphs are compiled from returns supplied by the various State government lending agencies in the several States. They include transactions in lands acquired under closer and soldier settlement schemes, but exclude balances owing on former Crown lands sold on the conditional purchase, etc., system.

The amounts outstanding do not represent the actual differences between the total advances and settlers' repayments, for considerable remissions of indebtedness have been made in all States as a result of reappraisements of land values and the writing down of debts. In general, they include both principal and interest outstanding.

A summary for Western Australia is not included, as practically the only Governmental funds being made available are Commonwealth (*see* § 8 above).

In New South Wales and Victoria, expenditure on the acquisition, development and improvement of land for war service land settlement is provided for by the States, and particulars thereof are included in the respective summaries. In Queensland, no money is paid for the value of the land acquired, most land being occupied on lease from the Government, but advances in respect of improvements are included. In the other States, this expenditure is provided for by the Commonwealth and particulars are included in § 8 above.

Loans (Agricultural Occupations) under the Commonwealth Re-establishment and Employment Act 1945 and certain advances for the purchase of wire-netting and for other purposes made from finance provided by the Commonwealth are included in the summaries following.

2. New South Wales.—The following table shows particulars respecting advances, etc., under State Authorities to 30th June, 1959:—

ADVANCES TO SETTLERS, ETC.: NEW SOUTH WALES.

Advances, etc.	Advances, etc., made during 1958-59.	Total Advances, etc., to 30th June, 1959.	Balance outstanding at 30th June, 1959.	
			Number of Accounts.	Amount.
<i>Department of Lands—</i>	£	£		£
Closer Land Settlement	1,700	15,125,816	6,447	(a) 1,647,619
Soldier Settlers 1914-18 War .. .. .	..	3,196,005	73	21,281
1939-45 War	781,709	14,054,570	5,252	4,853,504
Soldier Land Settlement—Acquisition, development and improvement of land, War Service Land Settlement Agreement Act	804,236	28,300,425	2,556	b 26,620,464
Wire Netting .. .. .	..	1,494,653	10	762
Prickly Pear	41,245	366,930	266	17,783
<i>Rural Bank—</i>				
<i>General Bank Department—</i>				
Commonwealth Re-establishment and Employment Act 1945 .. .. .	..	4,239,554	1,234	653,327
Other	1,358,675	76,207,740	7,819	18,693,207
<i>Government Agency Department—</i>				
Rural Industries	79,427	9,098,107	895	372,147
Unemployment Relief and Dairy Promotion	220,396	3,915,527	2,224	1,327,140
Rural Reconstruction (d)	397,821	14,268,515	803	2,210,851
Shallow Boring	120,025	1,784,746	310	434,101
Farm Water Supplies	127,783	685,270	579	458,277
Soil Conservation	28,432	59,534	97	53,231
Rivers and Foreshores Improvement .. .. .	..	4,916	24	1,002
Irrigation Areas	826,408	(e)	13,196	4,817,793
Government Guarantee Agency .. .. .	..	225,475	..	..
Closer Settlement Agency .. .. .	..	167,914	34	37,979
Total	4,787,857	173,195,697	41,819	62,220,468

(a) Excludes an amount of £4,683,062 capitalized to 30th June, 1959, on conversion into leasehold under the Closer Settlement Amendment (Conversion) Act 1943. (b) In addition, the sum of £1,927,161 has been expended to 30th June, 1959, on developmental works on soldiers' settlements. (c) Comprising capital value of Closer Settlement Leases, £19,423,634, and unpaid balance and interest on structural improvements, £7,196,830. (d) Includes Debt Adjustment, Drought Relief, and Marginal Wheat Areas Scheme Advances (Commonwealth and State Moneys), amount outstanding £1,109,471. (e) Not available. (f) Incomplete.

3. Victoria.—The following table shows particulars respecting advances, etc., under State Authorities to 30th June, 1959:—

ADVANCES TO SETTLERS, ETC.: VICTORIA.

Advances, etc.	Advances, etc., made during 1958-59.	Total Advances, etc., to 30th June, 1959.	Balance outstanding at 30th June, 1959.	
			Number of Persons.	Amount.
<i>State Savings Bank, Crédit Foncier—</i>	£	£	£	£
Civilians	59,565	11,933,078	500	457,194
Discharged Soldiers .. .. .	..	848,567	15	462,387
<i>Treasurer—</i>				
Cool Stores, Canneries, etc.	65,000	1,686,367	(a) 2	642,882
<i>Department of Lands and Survey—</i>				
Closer Settlement Settlers and Soldier Settlers .. .. .	..	546,904,855	1,828	1,834,085
Cultivators of Land .. .. .	..	2,463,558	86	18,042
Wire Netting	-38	731,420	45	5,352
<i>Soldier Settlement Commission—</i>				
Purchase of land	1,298,578	19,789,704	(c)	} d 15,452,000
Development and Improvement of Holdings	1,903,145	26,317,378	(c)	
Advances for sales of land not required for Soldier Settlement(e)	26,823	1,376,260	28	293,417
Advances for Settlers' Lease Liability, Soldier Settlement Act 1946	2,209,215	19,500,260	2,171	17,686,794
Advances to assist in acquiring and developing single unit farms	455,168	11,769,640	1,763	7,419,790
Advances for improvements, stock, implements, etc.	654,152	5,183,147	1,239	1,403,962
Advances for shares in Co-operative Companies, Soldier Settlement Act 1946 .. .. .	..	125,164	179	73,465
Commonwealth Re-establishment and Employment Act 1945 Advances	63	1,796,851	558	191,322
Total	6,671,671	150,426,249	8,414	45,940,692

(a) Number of Companies. (b) Represents consolidated debts of settlers (Section 30, Act 4091). (c) Not available. (d) After allowing an amount of £9,105,750 representing excess acquisition, development and improvement cost which has been written off. (e) Sale price of land not required for settlement, balance outstanding represents instalments not yet due where terms were given to purchasers.

4. **Queensland.**—The following table shows particulars of advances, etc., to 30th June, 1959. The figures exclude transactions in land:—

ADVANCES TO SETTLERS, ETC.: QUEENSLAND.

Advances, etc.	Advances, etc., made during 1958-59.	Total Advances, etc., to 30th June, 1959.	Balance outstanding at 30th June, 1959.	
			Number of Accounts.	Amount.
Co-ordination of Rural Advances and Agricultural Bank Acts	£ 2,729,775	£ 30,576,879	4,972	£ 12,029,567
Discharged Soldiers' Settlement(a) .. .. .	.. .. .	2,467,913	186	33,525
Water Facilities .. .. .	.. .. .	58,079	..	..
Wire Netting, etc. .. .. .	.. .. .	1,019,403	86	4,413
Seed Wheat and Barley	9,631 (b)	155,864	(c)	12,273
Drought Relief	3,992	1,329,059	232	283,982
War Service Land Settlement	228,969	4,225,426	407	2,188,509
Income (Unemployment Relief and State Development) Tax Acts(d) .. .. .	.. .. .	1,183,891 (e)	221	16,105
Irrigation .. .. .	.. .. .	54,914	4	548
Farmers' Assistance (Debt Adjustment Acts)	5,500	1,049,990	49	59,312
Commonwealth Re-establishment and Employment Act 1945	1,500	874,155	182	42,185
Water Supplies Assistance Act	5,021	5,021	7	5,028
Total	2,984,388	43,000,594 (e)	6,346	14,675,447

(a) Includes advances to group settlers through the Lands Department, as well as advances through the Agricultural Bank. (b) Includes accrued interest. (c) Not available. (d) Largely for relief to cotton and tobacco growers and for rural development (ringbarking, clearing, fencing, etc.). (e) Incomplete.

5. **South Australia.**—The following table shows particulars respecting advances, etc., under State Authorities to 30th June, 1959:—

ADVANCES TO SETTLERS, ETC.: SOUTH AUSTRALIA.

Advances, etc.	Advances, etc., made during 1958-59.	Total Advances, etc., to 30th June, 1959.	Balance outstanding at 30th June, 1959.	
			Number of Persons.	Amount.
<i>Department of Lands—</i>	£	£		£
Advances to Soldier Settlers .. .. .	.. .. .	5,071,780	42	1,080,292
Advances to Blockholders .. .. .	.. .. .	41,451	..	..
Advances for Sheds and Tanks .. .. .	.. .. .	75,693	..	..
Advances under Closer Settlement Acts .. .. .	.. .. .	2,730,516	540	702,020
Advances under Agricultural Graduates Settlement Act .. .. .	.. .. .	62,258	9	17,162
Settlement of Returned Service Personnel, 1939-45 War	843,976	4,382,514	1,026	2,898,007
<i>Primary Producers Assistance Department—</i>				
Advances in Drought-affected Areas .. .. .	.. .. .	2,146,768	4	1,088
Advances under Farmers Relief Acts .. .. .	.. .. .	4,435,509	3	533
<i>Irrigation Branch—</i>				
Advances to Civilians .. .. .	.. .. .	291,443	33	10,375
Advances to Soldier Settlers .. .. .	.. .. .	1,048,174	260	257,013
<i>State Bank of South Australia (Crédit Foncier Department)—</i>				
Advances to Settlers for Improvements	30,744	1,181,514	206	221,746
Advances under Vernin and Fencing Acts	3,958	1,402,314	78	32,640
Advances under Loans to Producers Act	488,385	2,185,651	121	1,572,859
Commonwealth Re-establishment and Employment Act 1945	323	827,287	317	187,818
Total	1,367,386	25,882,872	2,639	6,981,553

6. **Western Australia.**—The operations prior to 1945 covered in this section related to moneys made available through, or by, the old Agricultural Bank and other Government Departments for the purpose of agricultural development. On 1st October, 1945, however, the Agricultural Bank was reconstituted as the Rural and Industries Bank of Western Australia, and was given authority to operate in similar manner as the associated banks. Certain securities in the books of the old bank were taken over by the general banking division of the new bank, and the clients concerned then operated with privileges and obligations similar to those provided by other banking institutions. The majority of the remaining securities, also, were eventually transferred.

At present, very limited funds are being made available by the State Government for advances for agricultural development, the bulk of the moneys for this purpose being provided by the Commonwealth Government under the War Service Land Settlement and Commonwealth Re-establishment and Employment Acts. Particulars of this expenditure are shown in § 8 above.

7. *Tasmania*.—The following table shows particulars of advances under State Authorities to 30th June, 1959. Although not regarded as outstanding advances by the Department of Agriculture the figures in connexion with closer and soldier land settlement have been included in the table for comparative purposes; the areas so purchased have been leased on 99-year terms with an option of purchase which the leaseholder may exercise at any time.

ADVANCES TO SETTLERS, ETC.: TASMANIA.

Advances, etc.	Advances, etc., made during 1958–59.	Total Advances, etc., to 30th June, 1959.	Balance outstanding at 30th June, 1959.	
			Number of Persons.	Amount.
<i>Agricultural Bank—</i>	£	£		£
State Advances Act and Rural Credits ..	132,688	3,679,938	771	694,514
Assistance to Fruitgrowers Act 1941 ..	..	34,556	2	43
Commonwealth Re-establishment and Employment Act 1945 ..	..	407,429	215	109,800
Primary Producers' Relief Act 1947 ..	..	297,846	67	12,299
<i>Minister for Agriculture—</i>				
<i>Soldier Settlers—</i>				
Advances ..	452	1,014,399	28	(a)14,195
Purchase of Estates, etc.(b) ..	15,025	2,568,520	(c) 295	279,244
<i>Closer Settlers—</i>				
Advances ..	..	102,807	5	1,862
Purchase of Estates, etc.(b) ..	1,823	525,808	71	63,172
Total ..	149,988	8,631,303	1,454	1,175,129

(a) Excludes £204,813 advances capitalized, £79,166 advances written off to bad debts, and £40,789 written off to revaluation. (b) Not regarded by the Department as outstanding advances. (c) Number of leaseholders, including those to whom advances have been made.

8. *Northern Territory*.—During the year 1958–59, 22 advances totalling £52,985 were approved and advances made totalled £71,376. At 30th June, 1959, the balance outstanding from 100 settlers, including interest, was £189,518.

9. *Summary of Advances*.—The following table is a summary for each State (except Western Australia) and the Northern Territory to 30th June, 1958. The particulars so far as they are available, represent the total sums advanced to settlers, including amounts spent by the various Governments in the purchase and improvement of estates disposed of by closer and soldier land settlement, while the amounts outstanding reveal the present indebtedness of settlers to the Governments, including arrears of principal and interest but excluding amounts written off debts and adjustments for land revaluations. Particulars of Loans (Agricultural Occupations) under the Commonwealth Re-establishment and Employment Act 1945 and of certain advances for wire-netting and other purposes provided from Commonwealth funds are included.

ADVANCES TO SETTLERS, ETC.: SUMMARY.

State.	Advances, etc., made during 1958–59.	Total Advances, etc., to 30th June, 1959.	Balance outstanding at 30th June, 1959.	
			Number of Persons.	Amount.
	£	£	£	£
New South Wales(a) ..	4,787,857	61,731,956	41,819	62,220,468
Victoria(a) ..	6,671,671	150,426,249	8,414	45,940,692
Queensland ..	2,984,388	43,000,594	(b)(c) 6,346	14,675,447
South Australia ..	1,367,386	25,882,872	2,639	6,981,553
Tasmania ..	149,988	8,631,303	1,454	1,175,129
Northern Territory ..	71,376	233,217	100	189,518

(a) Includes expenditure on acquisition, development and improvement of land for war service land settlement (see p. 105). (b) Incomplete. (c) Number of accounts.

§ 10. Alienation and Occupation of Crown Lands.

1. *General.*—The figures shown in the previous parts of this chapter show separately the areas alienated, in process of alienation, or occupied under various tenures. The following tables set out the position with regard to the tenure of land in each State, in the Northern Territory, and in the Australian Capital Territory during 1959. A summary for each State and Territory and for Australia as a whole is also included. Particulars for each year from 1949 to 1959 appear in *Primary Industries Bulletin* No. 53, Part 1.—Rural Industries, page 1. The area occupied includes roads, permanent reserves, forests, etc. In some cases, lands which are permanently reserved from alienation are occupied under leases or licences, and have been included therein. Lands occupied under leases or licences for pastoral purposes are frequently held on short tenures only, and could thus be made available for settlement practically whenever required.

2. *New South Wales.*—The total area of New South Wales is 198,037,120 acres, of which 27.4 per cent. had been alienated at 30th June, 1959; 5.8 per cent. was in process of alienation; 59.0 per cent. was held under leases and licences; and the remaining 7.8 per cent. was unoccupied, or held by the Crown.

The following table shows particulars as at 30th June, 1959:—

**ALIENATION AND OCCUPATION OF CROWN LANDS: NEW SOUTH WALES,
30th JUNE, 1959.
(Acres.)**

Particulars.	Area.	Particulars.	Area.
1. Alienated.		3. Held under Leases and Licences.	
Granted and sold prior to 1862 ..	7,146,579	Homestead selections and grants ..	1,690,026
Sold by auction and other sales, 1862 to date ..	15,878,670	Alienable leases, long-term and perpetual ..	25,456,727
Conditionally sold, 1862 to date ..	36,951,828	Long-term leases with limited right of alienation ..	1,595,746
Granted under Volunteer Land Regulations, 1867 to date ..	172,198	Other long-term leases ..	81,870,201
Granted for public and religious purposes ..	266,216	Short-term leases and temporary tenures ..	4,188,191
	60,415,491	Forest leases ..	1,834,564
		Mining and auriferous leases ..	196,623
Less lands resumed or reverted to Crown ..	6,072,287	Total ..	116,832,078
Total ..	54,343,204		
2. In Process of Alienation.		4. Unoccupied—Particulars of Lord Howe Island not being available, the area, 3,220 acres, is included under unoccupied (approximate) ..	
Conditional purchases ..	9,987,491		15,281,397
Closer settlement purchases ..	1,210,518		
Soldiers' group purchases ..	139,165		
Other forms of sale ..	243,267		
Total ..	11,580,441	5. Total Area of State ..	198,037,120

3. *Victoria.*—The total area of Victoria is 56,245,760 acres, of which 55.6 per cent. had been alienated up to the end of 1959; 2.8 per cent. was in process of alienation under deferred payments and closer settlement schemes; 12.8 per cent. was occupied under leases and licences; and 28.8 per cent. was unoccupied or held by the Crown.

The following table shows the distribution:—

**ALIENATION AND OCCUPATION OF CROWN LANDS: VICTORIA,
31st DECEMBER, 1959.
(Acres.)**

Particulars.	Area.	Particulars.	Area.
1. <i>Alienated</i>	31,301,377	3. <i>Leases and Licences held—</i> <i>Under Lands Department—</i>	
		Perpetual Leases	(a) 1,087,932
		Agricultural College Leases	29,926
		Other Leases and Licences	1,991
		Temporary (Yearly) Grazing Licences	6,066,605
2. <i>In Process of Alienation—</i> Exclusive of Mallee and Closer Settlement Lands	199,904	<i>Total</i>	7,186,454
Mallee Lands (exclusive of Closer Settlement Lands)	1,129,695		
Closer Settlement Lands	228,391	4. <i>Occupied by the Crown or Un-</i> <i>occupied</i>	16,199,939
<i>Total</i>	1,557,990	5. <i>Total Area of State</i>	56,245,760

(a) Large increase is due to issue of new leases under amending legislation.

4. **Queensland.**—The total area of this State is 426,880,000 acres, of which, on 31st December, 1959, 5.9 per cent. was alienated; 0.6 per cent. was in process of alienation; and 85.3 per cent. was occupied under leases and licences. The remainder, 8.2 per cent., was either unoccupied or held as reserves or for roads.

The distribution is shown in the following table:—

**ALIENATION AND OCCUPATION OF CROWN LANDS: QUEENSLAND,
31st DECEMBER, 1959.
(Acres.)**

Particulars.	Area.	Particulars.	Area.
1. <i>Alienated—</i>		3. <i>Occupied under Leases and</i> <i>Licences—</i>	
By Purchase	25,243,935	Pastoral Leases	242,592,640
Without Payment	92,185	Occupation Licences	17,749,120
		Grazing Selections and Settle- ment Farm Leases	91,781,894
		Leases—Special Purposes(a)	2,507,478
		Mining Leases	2,110,019
		Perpetual Lease Selections and Perpetual Lease Prickly Pear Selections	6,844,813
		Auction Perpetual Leases, etc. Forest Grazing Leases (of Reserves)	41,883
		<i>Total</i>	364,256,327
		4. <i>Reserves (net, not leased), Surveyed</i> <i>Roads and Surveyed Stock</i> <i>Routes</i>	22,189,286
<i>Total</i>	25,336,120	5. <i>Unoccupied</i>	12,611,062
		6. <i>Total Area of State</i>	426,880,000
2. <i>In Process of Alienation</i>	2,487,205		

(a) Special leases of Crown land, 493,332 acres; special leases of reserves, 1,996,063 acres.

5. **South Australia.**—The area of South Australia is 243,244,800 acres and at 30th June, 1959, 6.3 per cent. was alienated; 0.2 per cent. in process of alienation; 56.9 per cent. occupied under leases and licences; and 36.6 per cent. occupied by the Crown or unoccupied.

The following table shows the distribution:—

**ALIENATION AND OCCUPATION OF CROWN LANDS: SOUTH AUSTRALIA,
30th JUNE, 1959.
(Acres.)**

Particulars.	Area.	Particulars.	Area.
1. Alienated—		3. Held under Lease and Licence(a)—	
Sold	14,262,549	Perpetual Leases, including Ir-	
Free Grants	914,283	rigation Leases	19,995,847
Dedicated	270,076	Pastoral Leases	115,110,931
		Other Leases and Licences	3,197,405
		<i>Total</i>	<i>138,304,183</i>
<i>Total</i>	<i>15,446,908</i>	4. Area Unoccupied(b)	89,018,403
2. In Process of Alienation	475,306	5. Total Area of State	243,244,800

(a) Mining leases and licences have also been issued over an area comprising 171,168,543 acres.

(b) Includes surveyed roads, railways and other reserves, salt water lakes, lagoons, and fresh water lakes.

6. Western Australia.—The total area of Western Australia is 624,588,800 acres, of which, at 30th June, 1959, 4.3 per cent. was alienated; 2.1 per cent. was in process of alienation; and 36.4 per cent. was occupied under leases and licences issued either by the Lands, Mines or Forests Departments. The balance of 57.2 per cent. was unoccupied.

The following table shows the distribution:—

**ALIENATION AND OCCUPATION OF CROWN LANDS: WESTERN AUSTRALIA,
30th JUNE, 1959.
(Acres.)**

Particulars.	Area.	Particulars.	Area.
1. Alienated	26,810,081	3. Leases and Licences in Force—	
		(i) Issued by Lands Department—	
		Pastoral Leases	217,655,338
		Special Leases	3,736,223
		Leases of Reserves	828,603
		Residential Lots	4,621
		Perpetual Leases	1,251,212
2. In Process of Alienation—		(ii) Issued by Mines Department—	
Free Homestead Farms	339,139	Gold-mining Leases	20,423
Conditional Purchase	11,063,259	Mineral Leases	38,414
Selections under the Agricultural		Miners' Homestead	
Lands Purchase Act	275,249	Leases	34,111
Grazing Land	1,148,677	(iii) Issued by Forests Department—	
Town and Suburban Lots	4,949	Timber Permits	4,031,140
Crown Grants of Reserves	76,447	<i>Total</i>	<i>227,600,085</i>
<i>Total</i>	<i>12,907,720</i>	4. Area Unoccupied	357,270,914
		5. Total Area of State	624,588,800

7. Tasmania.—The total area of Tasmania is 16,778,000 acres, of which, at 30th June, 1959, 37.9 per cent. had been alienated; 1.2 per cent. was in process of alienation; 10.3 per cent. was occupied under leases and licences for either pastoral, agricultural, timber, or mining purposes, or for closer or soldier settlement; while the remainder (50.6 per cent.) was unoccupied or reserved by the Crown.

The following table shows the distribution:—

**ALIENATION AND OCCUPATION OF CROWN LANDS: TASMANIA,
30th JUNE, 1959.
(Acres.)**

Particulars.	Area.	Particulars.	Area.
1. <i>Alienated</i>	6,362,412	3. <i>Leases and Licences—continued.</i>	
2. <i>In Process of Alienation</i>	199,328	(i) Issued by Lands Department— <i>continued.</i>	
3. <i>Leases and Licences—</i>		Soldier Settlement ..	52,326
(i) Issued by Lands Department—		Short-term Leases ..	808
Islands	75,809	(ii) Issued by Mines Department ..	37,494
Ordinary Leased Land ..	947,331	<i>Total</i>	1,729,504
Land Leased for Timber ..	601,408	4. <i>Area Occupied by the Crown or Un-</i>	
Closer Settlement ..	14,328	occupied	8,486,756
		5. <i>Total Area of State</i>	16,778,000

8. **Northern Territory.**—The area of the Northern Territory is 335,116,800 acres, of which, at 30th June, 1959, only 0.1 per cent. was alienated; 52.1 per cent. was held under leases and licences; 14.6 per cent. was reserved for aboriginal, defence and public requirements; and the remaining 33.2 per cent. was unoccupied and unreserved.

The following shows the mode of occupancy of areas at 30th June, 1959:—Alienated, 375,922 acres; leased—pastoral leases, 139,696,635 acres, other leases, licences and mission stations, 34,954,880 acres, total leased, 174,651,515 acres; reserved for aboriginal, defence and public requirements, 48,985,313 acres; unoccupied and unreserved, 111,104,050 acres; total, 335,116,800 acres.

9. **Australian Capital Territory.**—Alienated land of the Territory (excluding the Jervis Bay area) at the end of 1959 comprised 11.3 per cent. of the total area; land in process of alienation 7.1 per cent; land held under lease and licence 49.2 per cent; land otherwise occupied, including city tenures, 8.3 per cent.; and unoccupied 24.1 per cent.

The following are the particulars of land areas in the Australian Capital Territory at the end of 1959:—Alienated 65,857 acres; in process of alienation 41,224 acres; leased—Grazing, agricultural, etc., leases, 275,458 acres; grazing licences, 11,100 acres; otherwise occupied, including city area leases, 48,604 acres; total leased, 335,162 acres; unoccupied, 140,686 acres; total, 582,929 acres. Including the Jervis Bay area of 18,000 acres—6,266 acres leased and 11,734 acres otherwise occupied—the grand total for the whole Territory is 600,929 acres.

10. **Summary.**—The following table provides a summary for each State and Territory, and for Australia as a whole, of the alienation and occupation of Crown lands in 1958:—

ALIENATION AND OCCUPATION OF CROWN LANDS, 1958.

State or Territory.	Private Lands.				Crown Lands.				Total Area.
	Alienated.		In Process of Alienation.		Leased or Licensed.		Other.		
	'000 Acres.	Per Cent.	'000 Acres.	Per Cent.	'000 Acres.	Per Cent.	'000 Acres.	Per Cent.	
N.S.W.(a) ..	54,343	27.4	11,581	5.8	116,832	59.0	15,281	7.8	198,037
Victoria(b) ..	31,301	55.6	1,558	2.8	7,187	12.8	16,200	28.8	56,246
Queensland(f)h	25,336	5.9	2,487	0.6	364,257	85.3	34,800	8.2	426,880
S. Aust.(a) ..	15,447	6.3	475	0.2	138,304	56.9	89,019	36.6	243,245
W. Aust.(a) ..	26,810	4.3	12,907	2.1	227,600	36.4	357,271	57.2	624,588
Tasmania(a) ..	6,362	37.9	199	1.2	1,730	10.3	8,487	50.6	16,778
Nor. Terr.(a) ..	376	0.1	..	..	174,652	52.1	160,089	47.8	335,117
A.C.T.(b)(c) ..	66	11.0	41	6.8	342	56.9	152	25.3	601
Australia ..	160,041	8.4	29,248	1.5	1,030,904	54.3	681,299	35.8	1,901,492

(a) At 30th June.

(b) At 31st December.

(c) Includes Jervis Bay area.

A diagram showing in graphical form the areas alienated from the State, those in process of alienation under the various systems of deferred payments, the areas held under leases or licences and the areas left unoccupied was included in earlier issues of the *Official Year Book* (see No. 41, page 73), but is not reprinted in this issue.

CHAPTER V.

THE TERRITORIES OF AUSTRALIA.

NOTE.—The internal Territories of Australia are the Northern Territory and the Australian Capital Territory. External Territories under the control of Australia are:—Norfolk Island; Papua (formerly British New Guinea); the Territory of New Guinea (under Trusteeship Agreement with the United Nations); Nauru (under Trusteeship Agreement with the United Nations); the Territory of Heard and McDonald Islands; the Australian Antarctic Territory; the Territory of Ashmore and Cartier Islands; the Territory of Cocos (Keeling) Islands; and the Territory of Christmas Island. Information on all except Ashmore and Cartier Islands is contained in the following pages, and details of the acquisition of all the Territories will be found on pages 5, 23 and 24 of Chapter I. (See map on page 141 for location of Territories.)

THE NORTHERN TERRITORY.

§ 1. Area and Population.

1. **Area.**—Upon the extension of New South Wales westward to the 129th east meridian in 1825, the Northern Territory was incorporated in that colony, but in 1863 it was annexed by Royal Letters Patent to the province of South Australia. With the adjacent islands, it was transferred to the Commonwealth on 1st January, 1911. The total area is 523,620 square miles.

2. **Population.**—(i) *Population excluding Full-blood Aborigines.* At the Census of 30th June, 1954, the population of the Territory, excluding full-blood aborigines, was 10,288 males, 6,181 females, 16,469 persons. Corresponding figures at the Census of 30th June, 1947, were 7,378, 3,490 and 10,868 respectively. The estimated population, excluding full-blood aborigines, at 30th June, 1959, was 20,942 persons.

The European population of the Territory increased slowly from 670 at the Census of 1881 to 3,767 in 1918. By 1921, it had decreased to 2,458, and in 1933 was still only 3,306. At the Census of 1947, it had risen to 9,116, an increase of 176 per cent. on the 1933 figures, while at the Census of 1954 it had risen a further 54 per cent. to 14,028.

Although at one time there were more than 4,000 Chinese in the Territory, at 30th June, 1954, there were only 325, and these comprised the major proportion of the 486 full-blood non-European inhabitants, excluding Australian aborigines, at that date.

The half-caste population recorded at the Census of 1954 numbered 1,955, of whom 1,659 were half-caste Australian aborigines. Corresponding figures at the 1947 Census were 1,364 and 1,247 respectively.

(ii) *The Aborigines.* For particulars relating to the aboriginal population see Chapter IX.—Population. Under the Aborigines Ordinance, which was replaced by the Welfare Ordinance on 13th May, 1957, all aborigines were, as a race, deprived of citizenship rights and could only attain them by individual exemption from the legislation. The Welfare Ordinance recognizes that from birth they are Australian citizens and temporarily deprives of full citizen rights only those who are committed by name as wards of the State under processes laid down by law. Such committal is subject to the right of individual appeal. This is the same basic idea that is expressed in social legislation applying to those members of the white community who are not able to look after themselves or who have to be protected (e.g., neglected children). Reserves for wards comprise an area of 94,509 square miles. (See also Chapter IX.—Population.)

§ 2. Legislation and Administration.

On 1st January, 1911, the Territory was transferred from South Australia to the Commonwealth. The terms were outlined in Official Year Book No. 15, page 940. For particulars of the administration up to the Northern Territory (Administration) Act 1931, by which it was, for the second time, placed in the hands of an Administrator; see Official Year Book No. 38 and earlier issues.

The Northern Territory (Administration) Act 1910–1959 provides for the constitution of a Legislative Council consisting of the Administrator as President, six official members, three nominated non-official members and eight elected members. The Council makes

ordinances for the Territory, which must be submitted to the Administrator for assent. The Administrator may, or may not, assent to them, or he may reserve them for the Governor-General. The Governor-General may disallow any ordinance assented to by the Administrator within six months from the date of assent, and the operation of ordinances relating to certain matters, including Crown lands and aboriginal affairs, is dependent on his approval. Money votes may be proposed in the Council only by the Administrator himself, or by his permission or direction.

The Territory elects a member to the House of Representatives, who has the right to take part in debates but may only vote on matters that relate solely to the Northern Territory.

§ 3. Physiography.

1. **Tropical Nature of the Country.**—The Territory is within the torrid zone, with the exception of a strip about 180 miles wide which lies south of the Tropic of Capricorn.

2. **Contour and Physical Characteristics.**—The low flat coast-line seldom reaches a height of 100 feet. Sandy beaches and mud flats, thickly fringed with mangroves, prevail. Sandstone, marl and laterite form the occasional cliffy headlands. The sea frontage of more than 1,000 miles is indented by bays and inlets and intersected by numerous rivers, many of which are navigable for considerable distances from their estuaries. The only practicable deep-water port, however, is Darwin.

Inland, the country generally is destitute of conspicuous landmarks. From the coast, there is a general rise southwards to the vicinity of the 17th or 18th parallel of south latitude, where the higher lands form the watershed between the rivers that flow northwards to the sea and those that form the scanty supply for the interior systems. Towards the centre of the continent, the land over a wide area is of considerable elevation, and there are several mountain ranges, generally with an east and west trend.

§ 4. Climate, Fauna and Flora.

1. **The Seasons.**—There are two main climatic divisions, the wet season, November to April, and the dry season, May to October, with uniform and regular changes of weather. Nearly the whole of the rainfall occurs in the summer months. Further particulars appear in Official Year Book No. 6, page 1116.

2. **Fauna.**—The ordinary types of native Australian fauna inhabit the Territory. As elsewhere on the continent, the higher *Theria* are rare, but marsupials, birds, crocodiles, fresh-water tortoises, snakes (mostly non-venomous) and frogs abound. There are many varieties of fresh-water fish and littoral mollusca. Butterflies and beetles are strongly represented. The termite is a pest which is capable of serious damage to wooden buildings unless special preventative measures are taken. A species of the ant builds anthills which sometimes attain great dimensions. Mosquitoes and sandflies are very troublesome, particularly in the wet season. Some types of native fauna are protected. Buffalo formerly existed in large herds, but their number has been greatly reduced by indiscriminate shooting. Buffalo shooting is now controlled by Ordinance.

3. **Flora.**—The vegetation is North Australian in type, but a number of the forms belong to the Malayan and Oceanic regions. The timber trees are not of great commercial value, but in the coastal regions tropical vegetation grows luxuriantly to the water's edge. In the north, cypress pine, bloodwood and paperbark timbers are now cut and milled for local building purposes. These three timbers are resistant to termites. On the wide expanses of plain country in the interior, there is little vegetation, the principal orders represented being:—*Euphorbiaceae*, *Compositae*, *Convolvulaceae*, *Rubiaceae*, *Goodeniaceae*, *Leguminosae*, *Utricaceae*.

§ 5. Production.

1. **Agriculture.**—Up to the present, agriculture has made little progress in the Territory, although rice, peanuts, tobacco, grain sorghum, bananas, pineapples, citrus fruits, mangoes, papaws, vegetables, fodder plants and improved pastures can be grown in certain areas. At the present time, commercial agricultural production is practically confined to peanuts, which have been an export crop for some time, and to vegetables and small-scale fruit production (mainly pineapple and citrus) for local consumption.

In 1946, the Commonwealth Scientific and Industrial Research Organization commenced scientific surveys to define more accurately the potentialities of the Territory. Surveys have been completed of the Katherine-Darwin, Barkly Tableland and Victoria River Regions. The survey of the Katherine-Darwin Region indicated that further investigations into agricultural possibilities were warranted. As a result, the C.S.I.R.O. established an agricultural research station at Katherine to investigate the possibilities of dry farming in a land system covering an area of about 7,000 square miles in the Katherine-Daly River basin. The research work at this station was sufficiently encouraging in respect of the production of peanuts, grain sorghum, and pastures to warrant investigations into the application of the findings on a commercial scale. To further the investigations, the Commonwealth Government approved of the establishment by the Northern Territory Administration, in 1952, of an experimental farm at Katherine for the purpose of carrying out trials with these crops to determine the requirements for farming them on a commercial scale. The trials are in progress but it is too early to make any definite pronouncements. In 1956, the Administration established an experimental farm at Berrimah, near Darwin. Investigations into fruit and vegetable growing and pasture production are being carried out under both dryland and irrigated conditions.

The survey of the Katherine-Darwin Region also indicated various soil types in other parts of the Region on which agricultural production tests would be worthwhile. Trials on soil types are carried out by agricultural field officers of the Administration in various areas of the Territory considered potentially suitable for agriculture.

Prospects for rice growing were indicated by the survey and in 1952 the Administration established rice research stations at Humpty Doo and at a location known as Sixty Mile, on the Stuart Highway, 60 miles from Darwin. From the 1959-60 season, rice research work will be carried out in the Territory by the C.S.I.R.O. at its Coastal Plains Research Station at Middle Point, near Humpty Doo, as well as by the Administration at the Upper Adelaide River Agricultural Experiment Station. Because of flooding difficulties in the wet season, rice quarantine for the Northern Territory is carried out by the C.S.I.R.O. at the Kimberley Research Station, Western Australia. At the rice research stations, it has been demonstrated that rice can be grown in the Territory but that the main problems are adequate water control and drainage, determination of cultivation techniques in the soil conditions, and the production of suitable rice varieties. Since the 1954-55 season, Territory Rice Limited, a firm with Australian and American capital, has been conducting large-scale trials near Humpty Doo to prove its theory that commercial production of rice is possible on the sub-coastal plains of the Territory.

2. Pastoral Industry.—The pastoral possibilities of certain parts of the Territory were recognized at an early date and in 1866 stock were brought into the Macdonnell Range country from South Australia. Six years later, cattle were moved from Queensland to the northern parts of the Territory and in 1879 Giles reached the Katherine River with 2,000 head of cattle and 12,000 sheep from South Australia. For various reasons, sheep-raising was not very successful. The cattle industry, however, progressed steadily and is continuing to expand.

Cattle exported during 1959-60 numbered 137,192—76,782 to Queensland, 45,072 to South Australia, 8,828 to Western Australia and 6,510 to Hong Kong. Other livestock exports included 149 horses, 106 pigs, 400 sheep and 45 buffaloes. Imports of livestock were—Bulls 1,278; other cattle, 4,591; horses, 220; rams, 57; other sheep, 6,527; pigs, 135; ducks, 1,000; and chickens, 30,000.

The estimated numbers of livestock in the Territory at the end of 1955 and at June, 1957 to 1960, are given in the table hereunder:—

NORTHERN TERRITORY: LIVESTOCK.

As at—	Horses.	Cattle.	Sheep.	Pigs.	Goats.	Camels.	Donkeys.	Mules.
31st Dec. 1955 ..	37,306	1,027,819	33,249	1,076	12,273	59	755	363
30th June 1957 ..	38,180	1,175,997	30,466	755	11,189	51	450	286
„ „ 1958 ..	38,668	1,243,588	26,795	3,071	9,938	56	372	324
„ „ 1959 ..	39,131	1,138,156	22,141	3,191	9,126	36	307	300
„ „ 1960 ..	37,171	1,088,982	16,611	2,272	9,440	40	411	318

3. **Hides and Skins.**—The numbers of hides and skins exported from the Territory during 1959–60 were as follows: sheep, 2,653; crocodile, 1,223; and cattle, 5,777.

4. **Mining.**—During 1959, the value of output of the mining industry in the Territory, excluding uranium mining, was £2,314,000.

The mining of copper ores and concentrates is the most important in terms of value of output and accounts for more than half of the Territory's total recorded production. Prior to 1956, gold minerals, first mined in 1869, accounted for most of the value of output but from 1956 onwards gold production has remained relatively constant while copper production has increased considerably. The bulk of the copper and gold is won at Tennant Creek where, in 1958, the government battery was re-opened to encourage gold mining by smaller operators.

Uranium minerals were first discovered at Rum Jungle in 1949, and other deposits have been found since. Production of uranium concentrate at Rum Jungle commenced in 1954 and, during 1959, additional plants for the processing of ores mined from the South Alligator River area were established at Moline and South Alligator. The production of manganese and salt, two minerals used in these uranium treatment plants, commenced in 1955 and 1957 respectively.

The Harts Range field in Central Australia continues to produce the bulk of Australian high grade mica but production is declining because of the ready availability of lower priced mica from overseas. Production of tin and wolfram concentrates, important in the past, is now negligible.

The following table shows the value of output of the mining industry in the Territory for the years 1955 to 1959:—

NORTHERN TERRITORY: VALUE OF OUTPUT^(a) OF THE MINING INDUSTRY.
(Excluding Uranium.)
(£'000.)

Year.	Copper Ore and Concentrate.	Gold. (b)	Manganese Ore.	Mica.	Other.	Total All Minerals.
1955	611	866	28	64	122	1,691
1956	1,360	1,032	29	42	131	2,594
1957	1,024	973	20	50	59	2,126
1958	1,286	895	70	47	16	2,314
1959(c)	1,378	842	58	44	12	2,334

(a) Selling value at point of sale of mine products less transport costs from mine to point of sale
(b) Ore, concentrate, bullion, alluvial gold, etc. (c) Subject to revision.

5. **Pearl Fisheries.**—In 1884, mother-of-pearl-shell was discovered in the harbour of Port Darwin. Since that time, the areas fished have extended to the various banks to seaward and coastwise along the Northern Territory coast. Figures for production and value of shell for the seasons ended January, 1956 to 1960, are shown in the following table:—

NORTHERN TERRITORY: PEARL FISHING.^(a)

Season Ended January—	Boats Engaged.	Pearl-shell Taken.	
		Quantity. (^c 000 lb.)	Value. (£'000.)
1956.. ..	10	311	74
1957.. ..	10	585	146
1958.. ..	11	753	135
1959.. ..	(b)5	314	57
1960.. ..	(b)5	188	36

(a) Excludes operations of Queensland and Japanese pearlers operating in Northern Territory waters. (b) Nine boats licensed.

§ 6. Land Tenure.

1. **General.**—A description of the system of land tenure in force in the Territory in 1928 is given in Official Year Book No. 22, Chapter V.—Land Tenure and Settlement. It was revised in Official Year Book No. 39, pages 329–30, and Chapter IV.—Land Tenure and Settlement, of this issue contains up-to-date statistical information on the subject.

Almost half the land in the Territory is reserved, or unoccupied and unreserved, the remainder, apart from a very small proportion alienated, being held under various forms of lease or licence, which are described briefly below and in more detail in Official Year Book No. 39, pages 329-30.

2. Pastoral, Agricultural, etc., Leases.—*Pastoral Leases*—granted for periods not exceeding 50 years.

Pastoral Homestead Leases—granted in perpetuity but available only to persons who intend to reside *bona fide* on the leased land. Companies are not eligible to hold this type of lease.

Agricultural Leases—granted in perpetuity, with the area for any one lease limited according to the type of farm (Cultivation farms, Class 1, 1,280 acres, Class 2, 2,560 acres; Mixed farming and grazing, Class 1, 12,800 acres, Class 2, 38,400 acres).

Leases of Town Lands—except in Darwin, granted in perpetuity (in Darwin granted for periods up to 99 years).

Special Purpose Leases—granted for periods up to 99 years, for purposes other than pastoral, agricultural or mining, or private residential purposes within a town.

Agricultural Development Leases—granted for periods up to 30 years for the purpose of large scale agricultural development.

Church Lands Leases—granted for church purposes at a nominal rental in perpetuity.

Leases to Aboriginals—granted for areas not exceeding 160 acres each for any period of years upon such terms and conditions as thought fit.

Leases to Mission Organizations—granted for periods up to 21 years.

Miscellaneous Leases—granted for any prescribed or approved purpose, for periods not exceeding 21 years.

Grazing Licences—granted to graze stock on Crown lands for periods not exceeding one year.

Occupation Licences—granted for manufacturing, industrial or any prescribed purposes, for periods not exceeding five years.

Miscellaneous Licences—granted for periods not exceeding one year.

The foregoing leases and licences are granted at specified rentals or rentals fixed by the Administrator and subject to re-appraisement, and under various prescribed or specified conditions.

3. Mining Leases, etc.—*Holdings under Miners' Rights*—entitling the holder, for a fee of 5s. for 12 months from the date of issue, to take possession of and occupy Crown lands for mining purposes.

Gold-mining Leases—granted for a period of 21 years, renewable for further periods of 21 years, for areas not exceeding 20 acres each, at an annual rental of 5s. an acre for the first year and £1 an acre thereafter and with payment of a royalty of 3d. in the £1 on the value of gold won, or 6d. in the £1 if on Aboriginal Reserves.

Mineral Leases—granted in blocks not exceeding 40 acres each, at an annual rental of 5s. an acre, with term, renewal, and royalty conditions as for gold-mining leases.

Dredging Claims—granted for gold or minerals claims, the area not exceeding 300 acres each, at an annual rental of 2s. an acre and with payment of a royalty of 6d. in the £1 on the value of minerals won if on Aboriginal Reserves.

Petroleum Prospecting Permits—granted to search for oil over one, two or three areas not exceeding in the aggregate 10,000 square miles for an initial term not exceeding 12 months with provision for extensions in three-year periods up to a maximum of 10 years. The permittee must lodge a fee of £100 and enter into a bond for at least £1,000 to comply with the conditions of the permit and the provisions of the Petroleum (Prospecting and Mining) Ordinance 1954-1957 and the regulations thereunder.

Petroleum Licences—confer an exclusive right to carry out the detailed surveys and other operations necessary to test the land for petroleum. A licence is granted only to a permittee for a fee of £20 over an area not exceeding 2,500 square miles upon the permittee entering into a bond of at least £5,000 to comply with the provisions of the licence and the Ordinance and Regulations.

Petroleum Leases—granted only to a licensee for a period of 21 years, and renewable for further periods of 21 years, in respect of an area not exceeding 500 square miles. The lessee is required to pay a royalty of 10 per cent. on the gross value of all crude oil produced.

Coal Licences—granted to search for coal over an area not exceeding 1,000 square miles for a period of five years, at an annual fee of £10.

Coal Leases—granted for a period of 21 years, renewable for 21 years at an annual rental of 1s. an acre and a royalty fixed by regulation.

Business and Residence Areas—granted at the prescribed fee, authorizing the holder to occupy on a gold or mineral field an area not exceeding one acre for residence and carrying on business (one-quarter of an acre if for residence only).

Garden Areas—granted under prescribed conditions, on a gold or mineral field for growing fruit or other garden produce, the area of each garden not exceeding 5 acres.

There are various conditions regarding working, employment and value of machinery used, which apply to the foregoing leases and licences.

§ 7. Trade, Transport and Communication.

1. *Trade*.—No record is kept of the trade between the States and the Territory. In the years 1945–46 to 1948–49, direct overseas imports averaged about £200,000 a year, but in the four years 1950–51 to 1953–54, the average was about £625,000 a year. Imports totalled £1,058,998 in 1958–59 and £1,484,791 in 1959–60, while direct overseas exports amounted to £360,682 in 1958–59, and £551,199 in 1959–60.

2. *Shipping*.—Shipping services to Darwin are provided from the eastern States at intervals of about four weeks by ships of the Australian National Line and from Western Australia by four to five ships a month of the Western Australian State Shipping Service. Oversea tankers visit Darwin approximately ten times annually with supplies of aircraft fuel and other petroleum products. Other overseas vessels call at irregular intervals. During 1959–60, approximately 90,000 tons of merchandise and 63,000 tons of petroleum products were landed at Darwin.

3. *Air Services*.—At 30th June, 1959, there were 25 government aerodromes and 89 licensed aerodromes in the Territory. Darwin is a first-class international airport. Qantas Empire Airways Ltd. and British Overseas Airways Corporation operate, through Darwin, a Sydney–Singapore–London passenger and freight service. Qantas also conducts a service from Sydney through Darwin to Hong Kong and Tokyo. The Air France service from Paris to New Zealand via Saigon and the K.L.M. and Air India, London–Singapore–Sydney services also call at Darwin. Regular inland services to Darwin with, in some cases, intermediate stops at Territory centres are operated by Trans-Australia Airlines (from Adelaide, Melbourne, Sydney and Brisbane), and MacRobertson-Miller Airways Ltd. (from Perth and Wyndham). MacRobertson-Miller Airways Ltd. and Connellan Airways Ltd. operate a network of air services throughout the Territory, the latter company's base being at Alice Springs. The Royal Flying Doctor Service also operates aircraft, while charter services can be secured at Darwin and Alice Springs.

4. *Railways*.—The Commonwealth Railways Commissioner, under the Commonwealth Railways Act 1917–1957, operates the Central Australia Railway from Port Augusta to Alice Springs over a distance of more than 750 miles, of which about 200 are in the Northern Territory. The Commissioner also operates the North Australia Railway between Darwin and Birdum on a 3 ft. 6 in. gauge over a distance of 317 miles. The two inland terminals, Alice Springs and Birdum, are about 630 miles apart and are connected by road transport along the Stuart Highway. Larrimah, on the highway and six miles north of Birdum, is the point of trans-shipment for passengers and goods and is, at present, the effective terminal. A road-rail freight service operates between Adelaide and Darwin via Alice Springs.

5. *Roads*.—During the 1939–45 War, roads were built connecting Alice Springs with Darwin, and Mount Isa (Queensland) with Tennant Creek. The first of these roads, known as the Stuart Highway, is 954 miles long, and runs via Larrimah and Tennant Creek. The Mount Isa–Tennant Creek Road (Barkly Highway) is 403 miles long and joins the Stuart Highway some 16 miles north of Tennant Creek. Both were used extensively during the war and the Stuart Highway, in particular, experienced very heavy and continuous traffic. The highways are now used for carrying various freights including cattle, particularly to and from the railheads at Alice Springs, Larrimah and Mount Isa. The routes are used also for overland tourists and travellers from the southern States to Darwin. With the further development of the pastoral and mining industries in the Territory, road trains are now being used on both highways for the export of cattle and ore. Both roads have good water bores and communications. There are now approximately 12,650 miles of road in the Territory of which 1,360 miles are sealed.

6. Posts, Telegraphs, Telephones and Wireless.—Postal communication is maintained by road, rail and air transport between Darwin and the capital cities of Australia. In addition, vessels belonging to the Western Australian State Shipping Service provide a regular service between Fremantle and Darwin. Inland, the northern part of the Territory receives its mail via Darwin or by means of the aerial services, and the southern districts are served via Adelaide.

The overland telegraph line, covering a length of 2,230 miles, runs from Adelaide to Darwin, and links Darwin in telegraphic communication with other parts of the world.

Long-distance telephone communication is established between Darwin and the capital cities of Australia, and oversea telephone communication through Sydney or Perth is also available.

Regional national broadcasting stations are situated at Darwin and Alice Springs. The majority of homesteads on pastoral leases are equipped with pedal wireless sets operated under licence from the Postmaster-General's Department. These stations are in daily communication with Flying Doctor Bases situated at Alice Springs (Northern Territory), Wyndham (Western Australia), Broken Hill (New South Wales) and Cloncurry (Queensland), and are used for transmission of radio-telegrams and other communications.

§ 8. Education.

1. European.—Schools for European and part-European children in the Territory are conducted for the Commonwealth, on an agreed basis of reimbursement, by the South Australian Department of Education which is represented in Darwin by an Assistant Supervisor of Education, Northern Territory Schools.

At 30th June, 1960, there were 13 Government schools in the Territory with 3,380 pupils, and three private schools with 784 pupils, providing instruction according to the South Australian curriculum. Classes up to the Leaving Certificate are provided at Alice Springs and at Darwin there is a separate High School with classes up to the Leaving Certificate.

Children of primary and pre-Intermediate secondary standard who live more than 10 miles from an established school receive an allowance of £80 per annum plus fare concessions if they board away from home in order to attend school. Twelve exhibitions are available annually on the results of the Intermediate Certificate, the maximum benefits being £120 per annum and annual return fares if the recipients are required to board away from home in order to attend school.

Approximately 148 children receive correspondence education under the South Australian Correspondence School system. The "School of the Air" supplements normal correspondence instruction for certain children. Some of these live as much as 500 miles distant from Alice Springs, from which point the "School of the Air" is conducted. Two twenty-minute sessions and one half-hourly session are given each day and a unique feature of the "School of the Air" is the "Question and Answer" section which forms a part of every session. Children with access to radio transceivers are able to ask questions of their teacher and all other pupils listen to the answers. One session a week is for pre-school children.

Eleven pre-school centres have been established in the Territory. In the past, all members of the pre-school staff, with the exception of those at Stuart Park, were recruited and employed by local voluntary committees. At the commencement of the 1958 school year, however, all staff members, with the exception of those at the Nathalie Grey Centre, Alice Springs, who preferred to continue under the previous arrangement, became officers of the Northern Territory Administration. Two scholarships are offered each year for Territory girls to qualify as pre-school teachers.

2. Special Aboriginal Schools.—The social, cultural and educational background of the aborigines has made necessary the establishment of special schools for them. It is envisaged that this necessity will ultimately pass. As from the beginning of the 1956 school year, control of these schools passed from the Commonwealth Office of Education to the Welfare Branch of the Administration. Twelve schools have so far been established. A special syllabus and series of readers have been prepared for use in these schools. Free mid-day meals, milk and school clothes are supplied to the pupils. In addition to the twelve

Administration schools, fourteen schools for aboriginal children are conducted by Missions with the aid of Government subsidies. Also, five schools aided by Government subsidies have been established on pastoral properties and the establishment of others along similar lines is planned.

3. **Theoretical Training of Apprentices.**—The recognition that technical school training is an extension of workshop training has led to the introduction of day-time classes which apprentices attend without loss of pay. Apprentices are directed by the Apprentices Board to undertake correspondence courses conducted by the Technical Correspondence School of the South Australian Education Department and the Sydney Technical College, these courses covering the work prescribed for the various trades in South Australia and New South Wales.

§ 9. Native Welfare.

The Welfare Ordinance, which came into operation on 13th May, 1957, established the principle that native people would be committed to the care of the State only on the grounds of their need for special care and assistance and not on the grounds of race or colour and it laid on the Director of Welfare a positive responsibility for the advancement of wards in his care. The Employment Ordinance provides for the training of wards and assistance in establishing them in occupations, either on their own account or as employees. The Ordinance envisages, among other forms of training, apprenticeships for the better-educated wards and training on the job for those wards not yet capable of entering into apprenticeships. It also envisages financial aid to natives or groups of natives who, under the guidance of the Director, may be able to engage in activities (for example in agriculture, cattle raising, hunting or fishing) on their own behalf. The Director of Welfare is responsible for supervising employment for the wards in his care, and protective legislation for those in employment is retained. The legislation does not, of course, apply to any persons who are not wards and native people who have ceased to be wards will come within the normal industrial customs of the country.

§ 10. Finance.

Details of revenue and expenditure of the Territory for the years 1955–56 to 1959–60 are shown below. The information given covers the transactions of the Commonwealth Consolidated Revenue Fund relating to the Northern Territory and the transactions of the North Australia Railway.

NORTHERN TERRITORY: REVENUE AND EXPENDITURE.

(£.)

Item.	1955–56.	1956–57.	1957–58.	1958–59.	1959–60.
REVENUE.					
<i>Taxation—</i>					
Probate and Stamp Duties ..	7,765	10,499	22,861	31,661	31,840
Motor Registration ..	41,528	42,994	47,476	52,610	60,429
<i>Total</i>	<i>49,293</i>	<i>53,493</i>	<i>70,337</i>	<i>84,271</i>	<i>92,269</i>
<i>Business Undertakings—</i>					
North Australia Railway ..	85,559	130,083	182,324	202,573	271,782
Electricity Supply ..	311,158	375,207	418,482	448,536	532,915
<i>Total</i>	<i>396,717</i>	<i>505,290</i>	<i>600,806</i>	<i>651,109</i>	<i>804,697</i>
<i>Other—</i>					
Rent and Rates ..	187,068	210,356	278,342	341,894	394,651
Miscellaneous ..	189,064	268,159	348,161	349,761	406,535
<i>Total</i>	<i>376,132</i>	<i>478,515</i>	<i>626,503</i>	<i>691,655</i>	<i>801,186</i>
Grand Total ..	822,142	1,037,298	1,297,646	1,427,035	1,698,152

NORTHERN TERRITORY: REVENUE AND EXPENDITURE—*continued.*
(£.)

Item.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
EXPENDITURE.					
<i>Public Debt Charges—</i>					
Interest(a)	124,561	122,489	123,003	118,958	114,917
Debt Redemption(b) ..	76,283	80,096	84,100	88,307	92,739
<i>Total</i>	<i>200,844</i>	<i>202,585</i>	<i>207,103</i>	<i>207,265</i>	<i>207,656</i>
<i>Business Undertakings—</i>					
North Australia Railway ..	183,268	238,750	220,615	168,764	202,014
Electricity Supply	282,976	300,961	288,633	335,769	363,378
Water Supply	83,959	79,866	95,429	106,105	101,783
Hostels Loss	41,849	36,339	29,468	38,000	42,738
<i>Total</i>	<i>592,052</i>	<i>655,916</i>	<i>634,145</i>	<i>648,638</i>	<i>709,913</i>
<i>Social Expenditure—</i>					
Aboriginal Affairs	421,412	508,743	684,308	719,695	979,984
Educational Services ..	131,548	160,815	208,162	243,327	278,096
Public Health, Recreation and Charitable	668,835	751,766	(c) 795,953	(c) 854,843	(c) 857,423
Law, Order and Public Safety	52,291	63,567	92,914	103,984	118,831
<i>Total</i>	<i>1,274,086</i>	<i>1,484,891</i>	<i>1,781,337</i>	<i>1,921,849</i>	<i>2,234,334</i>
<i>Capital Works and Services—</i>					
North Australia Railway ..	93,371	79,812	85,595	44,712	22,533
Water Supplies, Roads, Stock Routes, etc. ..	106,344	110,987	377,218	500,395	386,583
Buildings, Works, Sites, etc.	2,467,573	2,175,099	2,416,750	2,638,159	2,705,798
Plant and Equipment ..	214,117	336,344	322,665	212,164	322,440
Loans for housing	73,000	176,000	105,000	166,000	379,298
Loans for encouragement of Primary Production ..	..	..	53,589	71,244	10,038
Other .. ..	..	..	25,000	89,820	69,730
<i>Total</i>	<i>2,954,405</i>	<i>2,878,242</i>	<i>3,385,817</i>	<i>3,722,494</i>	<i>3,896,420</i>
<i>All Other—</i>					
Territory Administration ..	1,048,967	1,313,044	(c) 1,529,533	c1,767,085	c2,159,480
Developmental Services ..	128,717	148,472	169,366	183,984	221,500
Municipal, Sanitary and Gar- bage Services	83,466	71,831	(d) 209,969	(d) 190,260	(d) 223,632
Shipping Subsidy	3,800	3,500	2,000	2,000	2,333
Airmail Service Subsidy ..	35,229	35,416	29,197	30,850	35,615
Railway Freight Concessions	20,200	21,280	21,880	24,424	22,500
Rent, Repairs and Mainte- nance, n.e.i.	191,528	233,898	249,266	276,169	(e) 837,021
<i>Total</i>	<i>1,511,907</i>	<i>1,827,441</i>	<i>2,211,211</i>	<i>2,474,772</i>	<i>3,502,181</i>
Grand Total	6,533,294	7,049,075	8,219,613	8,975,018	10,550,504

(a) Includes North Australia Railway Interest and Exchange, 1955-56, £76,634; 1956-57, £75,906; 1957-58, £77,854; 1958-59, £75,332; 1959-60, £72,830. (b) Includes North Australia Railway Debt Redemption, 1955-56, £44,096; 1956-57, £46,300; 1957-58, £48,614; 1958-59, £51,047; 1959-60, £53,616.

(c) Not comparable with previous years, see Note (d). (d) Includes expenditure on Mosquito Prevention and Cemeteries formerly included under Public Health and on Botanical Gardens formerly included under Territory Administration. (e) Includes expenditure on Stuart and Barkly Highways, £499,900.

THE AUSTRALIAN CAPITAL TERRITORY.

1. **Introductory.**—Information regarding the selection and establishment of Canberra as the Australian capital city, the physiography of the Territory, and its early history, will be found in earlier issues of the Official Year Book—See List of Special Articles, etc., at the end of this volume under “Canberra” and “Federal Capital City”.

On 12th March, 1913, the official ceremony to mark the start of operations in connexion with the establishment of the Seat of Government was carried out. At this ceremony, the selection of “Canberra” as the name of the capital city was announced.

On 9th May, 1927, Parliament House at Canberra was officially opened by His Royal Highness Albert, Duke of York, afterwards His Majesty King George VI., the occasion being the 26th anniversary of the opening of the first Parliament of the Commonwealth at Melbourne by His Royal Highness George, Duke of Cornwall and York, afterwards His Majesty King George V., on 9th May, 1901. (For particulars of the opening ceremony see Official Year Book No. 21, p. 604.)

The development of the Territory administration prior to the taking over of control by the Federal Capital Commission on 1st January, 1925, is described in summarized form in Official Year Book No. 18, and in Official Year Book No. 22 a summary is given of the administrative activities of the Federal Capital Commission. The administration of the Territory by this authority was continued until 30th April, 1930, when the Seat of Government (Administration) Act 1924–1929 was repealed, and the powers and functions of the Commission reverted to the Government.

Since April, 1932, the general control of the Territory has been exercised by the Minister for the Interior, certain specific services, however, being undertaken by the Department of Health, the Department of Works, the Attorney-General's Department, and the National Capital Development Commission.

An amendment to the Seat of Government Acceptance Act in 1938 provides that the Territory shall be known as the Australian Capital Territory.

2. **Progress of Works.**—(i) *General.* The National Capital Development Commission Act 1957–1960 established a statutory corporation to undertake the functions of planning, development, and construction of the City of Canberra as the National Capital of the Commonwealth. The Commission was appointed on 1st March, 1958, and commenced construction operations on 1st July, 1958. It carries out its construction by means of agency arrangements with the Department of Works and a number of private consultants.

The Commission is planning for a balanced programme of public and private development and construction to provide for the needs of officers of Commonwealth Departments transferred from Melbourne and the day to day needs of a rapidly growing community. It has in hand the main landscaping and structural features for the Canberra Lake Scheme.

The transfer of the staffs of Commonwealth Departments from Melbourne to Canberra recommenced on a larger scale in January, 1959, and, in addition, many other people have migrated to Canberra. It is estimated that a further increase in population of 50,000 persons in the next 10 years is likely. In order to cope with this development, the Commission has obtained the Government's general approval to a five year programme of development. It has put into operation a balanced programme of construction to provide for a population of 100,000 in 1970, and is planning the necessary houses, schools, offices, buildings and engineering works.

To date, the expenditure on construction by the Commission has been—

	£
1958–59	10,000,085
1959–60	11,046,438

The particulars of expenditure by the Commission for 1959–60 were—

	£'000.
Housing and flats	4,617
Education	1,036
Commonwealth administration	738
Other architectural projects	677
Engineering services	3,050
Minor works and furniture and fittings	197
Fees and charges	731
	<hr/>
	11,046

(ii) *Works Programme. (a) Housing.* During the year 1959–60, the Commission completed 681 houses and 467 flats, a total of 1,148 housing units. A further 841 houses and 107 flats were committed to construction.

Most of the housing undertaken for 1959–60 was in the suburbs of Dickson, Narrabundah and Lyneham. In addition to this work, comprising orthodox housing, a number of housing groups and flat units were under construction. One example is the Red Hill Housing Group, which is nearing completion. This is a new type of housing project for Canberra and groups together two-bedroom flats in three-storey blocks, three bedroom flats in buildings of two storeys and single, bachelor accommodation—all in a landscaped siting.

(b) *Other Building.* Of the other building operations undertaken, the major projects were—

Russell Offices. Work continued on the construction of the first four buildings of the proposed group of seven office buildings for the Defence departments. Each of the first four buildings is of five storeys, approximately 60,000 square feet gross, and provides accommodation for 350 to 400 people. The first building was handed over, complete for occupation by the Department of Air, late in 1960 and the other three under construction will become available for occupation over the next 18 months. These, together with the additional buildings, will form a major terminal feature at the intersection of Kings Avenue and Constitution Avenue.

Civic Offices. Work continued on the construction of the Civic Offices and City Square. These are three-storey buildings to accommodate staff of the Department of the Interior.

School of General Studies—Australian National University. The Arts Building has been completed and construction is well in hand on the Hall of Residence and the Physics Building. These provide the first permanent buildings for the school.

General Education. During the year, the following schools were completed—Lyneham High School, Red Hill Primary School, and additional accommodation at other schools.

The following schools were commenced, Narrabundah High School, Red Hill Infants School and the Campbell Infants and Primary Schools.

(c) *Lakes and Bridges.* The most notable events during 1959–60 were the commencement of the Lake Scheme by the letting of the contract for the construction of the dam, and the commencement of the Kings Avenue Bridge. The dam will be a mass concrete structure 65 feet high with a crest length of 770 feet. The contract provides for construction during the next three years. A further contract has been let for the design and fabrication of five 100 feet long crest gates, which will operate to regulate the lake level. In addition, the design of the Commonwealth Avenue Bridge has been prepared and a contract for its construction was let in January, 1961.

(d) *Engineering Services.* During the year 1959–60, water, sewerage and road works were undertaken for 1,570 residential building blocks, the greatest number ever prepared in one year in Canberra. At the end of the financial year, services for a further 870 blocks were under construction. Altogether, during the year, the Commission laid 14 miles of new roads, 31 miles of water mains, 40 miles of stormwater mains and 23 miles of sewer mains.

Work continued on the upper Cotter dam, which is being built to augment Canberra's water supply. It is anticipated that storage of water in the dam will commence during the winter of 1961.

(e) *Private Enterprise Development.* The Commission looks to private enterprise as an active partner in the development of the City. An increasing number of organizations, both national and local, are seeking to establish head-quarters in Canberra.

During the year 1959–60, almost 600 residential blocks were made available for private home construction and arrangements were made for the release of other sites for commercial, industrial and other purposes. In particular, these included 53 industrial sites, eight sites for office buildings and seventeen sites for shops.

3. **Forestry.**—A considerable amount of reafforestation work has been undertaken and plantations (mainly *Pinus radiata*) have been established at Uriarra, Mount Stromlo, Pierce's Creek, Green Hills and Kowen. Experimental plots have been established in the Brindabella mountains and soil conservation areas at various locations throughout the Territory.

The total area of softwood plantations at 31st December, 1960, was 23,200 acres, of which 21,000 acres were *Pinus radiata*, the balance consisting of other softwood species, chiefly *Pinus ponderosa* and *Pinus nigra*, and 169 acres of experimental planting at Jervis Bay, mainly *Pinus radiata* and *Pinus elliotii*.

Forestry operations in the Territory were begun on Mount Stromlo in 1915. Plantings up to 1925 were chiefly on decorative lines, but since then a much wider programme has been undertaken. Sawmill timber is now being obtained mainly from thinning operations. The yearly output of pine logs has increased from 2,500 cubic feet in 1930–31 to over one million cubic feet at the present time, the total amount cut to date being about 13.2 million cubic feet. The present output consists of approximately 50 per cent. logs yielding building material, and 50 per cent. case-making material.

In 1926, a comprehensive review was undertaken of the Territory's potentialities for forest development. The existing forest area has been placed under management and a considerable amount of survey and assessment work has been completed, resulting in the extension of operations, including fire protection, to 100,000 acres of hardwood forests in the Cotter catchment area. Hardwood log production during 1959 and 1960 has been reduced to 170,000 cubic feet per annum, all of which was used in building operations in Canberra. The total amount of hardwood cut from Australian Capital Territory forests to date is about 3,500,000 cubic feet.

4. **Lands.**—(i) *General.* Reference has been made in previous issues of the Official Year Book to the general conditions of land tenure in the Territory and to the area of alienated and leased land, and Chapter IV.—Land Tenure and Settlement, of this issue contains statistical information on the subject.

Under the Seat of Government (Administration) Act 1910, Crown lands in the Territory may not be sold or disposed of for any estate in freehold except in pursuance of some contract entered into before the commencement of that Act. Leases of land in the city area are granted under the City Area Leases Ordinance 1936–1957, and leases of other lands under the Leases Ordinance 1918–1958. Land is also leased for various purposes in the city area under the Church Lands Leases Ordinance 1924–1932 and the Leases (Special Purposes) Ordinance 1925–1943, while one lease under the Church of England Lands Ordinance 1926 has been granted for church purposes.

Under the City Area Leases Ordinance 1936–1957, the Government may grant leases of any Crown land in the city area for business or residential purposes. Such leases may be issued for a period not exceeding 99 years at a rental equal to five per cent. per annum of the unimproved value of the land, which value is subject to re-appraisal at the expiration of 20 years, and thereafter every 20 years. A suitable building must be commenced within six months and completed within 12 months unless an extension of time is allowed.

As considerable portions of the Territory lands are not immediately required in connexion with the establishment of the city, large areas have been leased for agricultural or grazing purposes. Leases may be granted for grazing, dairying, fruitgrowing, horticulture, agriculture or other purposes for periods not exceeding 50 years. The annual rental is 5 per cent. of the assessed value of the land inclusive of rates, the rental being subject to re-appraisal every 10 years.

(ii) *Jervis Bay Territory.* The Commonwealth acquired from the State of New South Wales sovereign rights over the area comprising about 28 square miles of land and water at Jervis Bay for possible use as a port in connexion with the Australian Capital Territory. The Royal Australian Naval College was established in this area on a site known as Captain's Point, but was removed in 1930 to Flinders Naval Base, Victoria. It was, however, re-established at the original site as from the beginning of 1958. Some 5,000 acres of land in the Jervis Bay area, mostly of little value agriculturally, are used for grazing purposes. The natural forest is being utilized for the production of hardwood building material and the area treated is being reforested with softwoods on an experimental basis.

5. **Transport and Communication.**—Canberra is connected with the railway system of New South Wales at Queanbeyan by a line $4\frac{1}{2}$ miles long. This line was opened for goods traffic on 25th May, 1914, and for passenger traffic on 15th October, 1923. The railway terminus is situated in the suburb of Kingston. A daily passenger service operates between Canberra and Sydney and Canberra and Melbourne.

Two airlines provide several services daily each way on the Sydney–Canberra–Melbourne route.

Regular motor-coach services link Canberra with towns in New South Wales, Victoria and South Australia.

There are three radio broadcasting stations in the Territory, 2CY and 2CN of the national broadcasting system and 2CA, a commercial station.

6. **Population.**—From 1911 until 1921, the population of the Territory remained at about 2,000 persons. In 1922, it commenced to rise, and by 1927 was nearing 6,000. The following year, with the transfer of departments from Melbourne, it passed 8,000.

The population at the Census of 30th June, 1947, was 16,905 persons—15,156 in the city area, 1,389 in the rural districts and 360 in the Jervis Bay area—and at the Census of 30th June 1954, it was 30,315 persons, 28,277 being in the Canberra city area and 517 in the Jervis Bay area. At 30th June, 1960, the estimated population of the Territory was 52,368, including 50,237 in the Canberra city area.

7. **Production.**—During 1959–60, the production of the more important items of the agricultural and pastoral industry was—Wheat, 46,821 bushels; wool, 2,898,000 lb; whole milk 959,000 gallons; meat (bone-in weight, fresh), 320 tons. The numbers of livestock depastured at 31st March, 1960, were—Horses, 684; cattle, 10,716; sheep, 279,086; and pigs, 150.

8. **Education.**—The Australian Capital Territory Education Ordinance provides for the compulsory attendance at school of children between the ages of six and fifteen years. The Commonwealth Department of the Interior is primarily responsible for the education of children in the Australian Capital Territory. By agreement, however, the New South Wales Department of Education arranges the teaching programme in accordance with its own curriculum and provides the teaching staff. It is reimbursed for expenses incurred.

At 31st October, 1960, there were three public secondary schools in Canberra providing courses to the Leaving Certificate standard, Canberra High School, Acton, Telopea Park High School, Barton, and Lyneham High School, Lyneham, while fifteen schools provided courses for children in infants and primary classes, including two in the Jervis Bay area and three in rural districts. A school for mentally handicapped children was opened early in 1955.

At the same date, there were twelve private schools in Canberra. Of these, St. Edmund's Christian Brothers College, the Catholic Girls High School, the Canberra Grammar School (Boys) and the Canberra Church of England Girls' Grammar School provide courses leading to the Leaving Certificate Examination.

Twenty-one pre-school centres, including an occasional care centre and a mobile unit which visits outlying areas provide pre-school facilities for approximately 1,500 children between the ages of three and five years.

The Canberra Technical College, which follows the curriculum set by the New South Wales Technical Education Department, provides trades courses for apprentices, vocational (non-trades) courses including accountancy, women's handicrafts, and sheep and wool courses, hobbies courses including ceramics, dressmaking, art, woodwork and motor maintenance, and courses for Commonwealth authorities, including workshop practice for Royal Military College cadets, motor maintenance for Australian Forestry School cadets and shorthand and typing courses for the Public Service Board. In addition, the Technical College undertook the trade testing of migrants seeking to enter skilled trades.

An area of about 250 acres has been set aside at Acton for the Australian National University. Provision has been made for the University to establish such research schools as may be thought desirable, including a School of Medical Research, and Research Schools of Physical Sciences, Social Sciences and Pacific Studies. Provision for undergraduate studies and some post-graduate study is made by the School of General Studies. Further reference to this University appears in § 8 of Chapter XV.—Education.

9. Finance.—Details of revenue and expenditure for the years 1955-56 to 1959-60 as recorded in the Commonwealth Consolidated Revenue Fund are given in the following table:—

AUSTRALIAN CAPITAL TERRITORY: REVENUE AND EXPENDITURE.
(£.)

Item.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
REVENUE.					
<i>Taxation</i>					
Motor Registration	79,229	91,198	101,695	121,567	143,884
Liquor	26,213	30,174	30,985	39,783	47,534
Rates	51,542	63,583	72,165	81,706	146,998
Other	990	402	1,938	3,082	2,091
<i>Total</i>	<i>157,974</i>	<i>185,357</i>	<i>206,783</i>	<i>246,138</i>	<i>340,507</i>
<i>Business Undertakings(a)—</i>					
Railways	15,168	20,531	18,532	46,287	25,115
Water Supply and Sewerage ..	24,361	27,736	31,440	18,848	26,542
Abattoirs	31,410	32,436	35,654	44,662	33,498
<i>Total</i>	<i>70,939</i>	<i>80,703</i>	<i>85,626</i>	<i>109,797</i>	<i>85,115</i>
<i>Rent—</i>					
Housing	585,940	628,615	691,455	822,743	1,052,792
Land	115,970	146,751	223,917	159,553	214,920
Miscellaneous	8,956	9,157	11,313	11,384	17,146
<i>Total</i>	<i>710,866</i>	<i>784,523</i>	<i>926,685</i>	<i>993,680</i>	<i>1,284,858</i>
Interest	52,388	(b)	(b)	(b)	(b)
Fees for Services and Fines ..	45,991	65,409	80,781	95,923	136,615
Sale of Houses—Mortgages and					
Cash Sales	361,299	(c) 354,189	(c) 324,337	(c) 314,795	(c) 309,586
Other	128,260	(c) 153,907	(c) 105,509	(c) 233,087	(c) 634,894
<i>Grand Total</i>	<i>1,527,717</i>	<i>1,624,088</i>	<i>1,729,721</i>	<i>1,993,420</i>	<i>2,791,575</i>
EXPENDITURE.					
<i>Public Debt Charges—</i>					
Interest	180,826	177,527	177,425	173,874	173,110
Debt Redemption	99,025	103,960	109,152	114,597	120,323
Other .. ..	..	..	..	496	245
<i>Total</i>	<i>279,851</i>	<i>281,487</i>	<i>286,577</i>	<i>288,967</i>	<i>293,678</i>
<i>Business Undertakings(a)(d)—</i>					
Railways	44,530	50,274	49,750	49,897	52,448
Water Supply and Sewerage ..	166,781	195,859	222,415	231,860	254,884
Abattoirs	24,782	26,432	30,829	33,170	32,010
Brickworks Loss	18,000	..	..	..	..
Transport Services(e)	70,000	60,000	72,000	62,000	62,000
Firewood Supplies Loss	1,000	1,000	..	..	..
Hostels(f)	22,726	22,479	37,337	32,254	..
Other .. ..	..	..	..	586	..
<i>Total</i>	<i>347,819</i>	<i>356,044</i>	<i>412,331</i>	<i>409,767</i>	<i>401,342</i>

NOTE.—For notes see end of table, page 128.

AUSTRALIAN CAPITAL TERRITORY: REVENUE AND EXPENDITURE
—continued.

(£.)

Item.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
<i>EXPENDITURE—continued.</i>					
<i>Social Expenditure (d)—</i>					
Education—					
Primary and Secondary ..	327,162	408,353	441,321	519,732	601,130
Technical College	47,322	48,692	52,809	56,115	68,719
University	113,110	157,009	183,740	320,675	349,530
Science, Art, Research, etc. ..	6,351	6,206	6,263	7,906	8,445
Nursery Schools and Pre-School Centres	23,376	25,708	29,067	30,175	32,861
Public Health and Recreation ..	95,314	103,752	113,492	127,124	132,261
Charitable—					
Hospital—General	189,211	260,720	298,669	356,819	396,250
Relief of Aged, Indigent, etc. ..	3,427	4,684	4,166	4,687	5,102
Other	20,450	22,796	28,899	64,749	38,674
Law, Order and Public Safety—					
Justice	26,773	28,999	34,675	38,570	45,942
Police	98,720	109,710	142,462	137,894	168,952
Public Safety	20,016	26,823	34,376	63,834	68,523
<i>Total</i>	971,232	1,203,452	1,369,939	1,728,280	1,916,389
<i>Capital Works and Services (g)—</i>					
<i>National Capital Development Commission—</i>					
Housing and Flats	(h)	(h)	(h)	5,836,083	4,616,827
Education				634,724	1,036,265
Commonwealth Administration				527,554	738,121
Other Architectural Projects ..				216,361	676,734
Engineering Services				1,952,354	3,050,243
Other				832,924	881,810
<i>Total</i>	(h)	(h)	(h)	10,000,000	11,000,000
<i>Other Authorities—</i>					
Railways	(h)	(h)	(h)	2,958	2,645
Electricity				347,153	494,788
Abattoirs				47,240	19,289
Transport Services				61,818	67,406
Schools				8,115	9,377
Hospital				24,698	27,402
Other Health Buildings				19,364	5,807
Housing				170,000	317,000
Forestry				70,000	70,000
Civil Aviation				98,573	36,004
Public Works, n.e.i.				349,765	400,305
<i>Total</i>	(h)	(h)	(h)	1,199,684	1,450,023
<i>Total Capital Works and Services</i>	5,200,105	4,960,592	8,421,686	11,199,684	12,450,023

NOTE.—See next page for notes.

AUSTRALIAN CAPITAL TERRITORY: REVENUE AND EXPENDITURE
—continued.

(£.)

Item.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
EXPENDITURE—continued.					
<i>All Other—</i>					
Roads and Bridges	239,748	301,870	295,810	321,342	329,955
Parks and Gardens, etc. ..	252,251	281,173	307,779	319,108	350,396
Lands and Surveys	54,530	56,323	58,416	58,718	150,921
Agriculture and Pasture ..	22,874	23,714	24,953	24,955	25,550
Forestry	5,000				
Housing	164,584	228,240	237,110	274,470	(h)
Civil Aviation	24,368	31,345	33,439	48,644	53,505
Legislative and General Admini- stration	296,385	293,551	329,739	482,683	718,588
Public Works, n.e.i.	31,543	48,132	42,572	68,352	(h)
Miscellaneous (i)	43,808	40,581	45,847	46,494	(i) 460,451
<i>Total</i>	<i>1,135,091</i>	<i>1,304,929</i>	<i>1,375,665</i>	<i>1,644,766</i>	<i>2,089,366</i>
Grand Total	7,934,098	8,106,504	11,866,198	15,271,464	17,150,798

(a) Excludes Electricity transactions in Australian Capital Territory Electricity Supply Trust Account.
 (b) Not available separately. Included in "Sale of Houses" and "Other." (c) Includes Interest.
 (d) Other than Capital Works and Services. (e) Payment to Australian Capital Territory Transport
 Trust Account (loss on omnibus service). (f) Includes loss on operations, 1955-56, £7,500; 1956-57,
 £15,000; and 1957-58, £30,000. (g) Excludes repairs and maintenance. (h) Not available.
 (i) Not comparable with previous years. Includes repairs and maintenance previously distributed,
 £410,000.

NORFOLK ISLAND.

1. **Area, Location, etc.**—Norfolk Island, discovered by Captain Cook in 1774, is situated in latitude 29° 3' 30" S., longitude 167° 57' 5" E. Its total area is 8,528 acres, the island being about 5 miles long and 3 miles wide. From Sydney, it is distant 930 miles, and from Auckland, 660 miles. The length of the coast line is 20 miles, and its form that of an irregular ellipse. Except for a portion on the south side and the landing place at Cascade on the northern side, almost inaccessible cliffs rise from the water's edge. The climate is equable, the temperature ranging between 49° and 85° F. with a mean of 68° F. The average annual rainfall is 53 inches. It has been said that the healthy climate together with the beauty of its landscapes and seascapes, should make Norfolk Island "the Madeira of the Pacific".

2. **Settlement and Population.**—The first colonization, in 1788, was by Lieutenant King of H.M.S. *Supply*, who established a small penal station on the island as a branch settlement of that at Port Jackson. The settlement was abandoned in 1813 and for 13 years thereafter the island was used chiefly as a whaling station and place of call for British warships.

From 1826 to 1855, it was again a penal station. In 1844, it was annexed to Van Diemen's Land (Tasmania).

The descendants of the *Bounty* mutineers, having become too numerous to subsist on Pitcairn Island, were removed to Norfolk Island in 1856. The new community, numbering 94 males and 100 females, were the descendants of British sailors and Tahitian women. The last of those transferred died at Norfolk Island on 1st March, 1943. The population of the island as disclosed by the Census of 30th June, 1954, was 942, consisting of 478 males and 464 females. The estimated population at 30th June, 1959, was 1,048 persons.

3. **Administration.**—In 1856, the island was created a distinct and separate settlement under the jurisdiction of New South Wales. In 1896, it was made a dependency under the Governor of that Colony, and finally, by the passage of the Norfolk Island Act 1913, it was accepted by the Commonwealth Parliament as a territory of Australia. From July, 1914, until 1st January, 1929, Norfolk Island was administered by the Department of Home and Territories, and then, until 25th June, 1941, by the Territories Branch of the Prime Minister's Department, but it is now controlled by the Minister for Territories through an Administrator. An amending measure, the Norfolk Island Act 1935, provided for the establishment of an Advisory Council of eight elected members which may advise the Administrator on matters affecting Norfolk Island.

The Norfolk Island Act 1957, which came into operation on 7th April, 1960, provides for variations in the administrative and judicial arrangements of the island. It also provides for a local government body, the Norfolk Island Council, which replaced the former advisory council, retaining its advisory functions but in addition having a certain autonomy in local government matters on the island.

4. **Economic Activity.**—The major economic activities of the island are primary production, whaling, the tourist trade and Government instrumentalities.

(i) **Primary Industries.** The soil on the island is particularly fertile, the climate equable, and the rainfall fairly evenly distributed except for a pronounced dry period in November. This enables a wide range of temperate and semi-tropical products to be cultivated. However, the island's comparative isolation and trading difficulties with New Zealand hamper production, although a relaxation of some restrictions enabled a limited quantity of out-of-season fruit and vegetables to be sent by air freight to Auckland.

Prior to 1939, the principal primary product was passion fruit pulp. However, the introduction of disease, together with the high cost of trellising and land reclamation, has led to the curtailment of this industry. Apart from whaling, bean seed is now the main export industry. The island's isolation from many plant diseases, plus the fairly reliable dry period, has ensured satisfactory production. Export figures for the five years to 1959–60 were, 1,084, 2,680, 1,713, 3,922 and 2,582 bushels. Recent prices have been low and sales difficult. The conditions on Norfolk Island also favour the production of other types of seed.

Island conditions are also conducive to good pasture growth and as a joint product of pastoral pursuits, quantities of hides and wool are exported.

Fish and, in certain months, whales abound off the island. In the past, a number of ventures have been formed to exploit these resources. They have been short-lived owing, for the most part, to the lack of a sheltered harbour. However, a modern whaling station was started on the island in 1955 and production commenced during the second half of 1956. The quota of 150 humpback whales in 1956, 120 in 1957 and in 1958, 150 in 1959 and 170 in 1960, was caught and processed at the station.

An active forestry programme is being carried out to increase the resources of Norfolk Island pine and to introduce suitable types of eucalypts.

(ii) **Tourists.** The unique history and unusual beauty of the island have always attracted a number of tourists. Before the 1939–45 War, the only means of transport to the island was by ship, but the building of the aerodrome in 1943 made the island far more accessible and a tourist industry has developed which is at present limited only by the accommodation available. Approximately 120 can now be catered for.

(iii) **Government Instrumentalities.** A large proportion of the population is employed by Commonwealth Government instrumentalities, namely:—Department of Civil Aviation, Norfolk Island Administration, Overseas Telecommunications Commission and Department of the Interior (Meteorological Branch). The bulk of the finance for the operation of these instrumentalities is supplied by the Commonwealth Government and this greatly increases the income of the island.

5. Trade, Transport and Communication.—Imports to Norfolk Island in 1938–39 amounted to £27,590, mainly from Australia. Since the 1939–45 War, they have risen from £32,402 in 1945–46 to £286,688 in 1958–59. In 1958–59, the major proportion (£264,944 or 92 per cent.) still came from Australia, while New Zealand supplied £21,694 or 8 per cent. Exports were valued at £16,970 in 1938–39, and have risen from £9,024 in 1945–46 to £185,464 in 1958–59. The big increase is due mainly to the commencement of operations by the whaling station in the 1956–57 season. Australia was the principal market, exports thereto amounting to £176,779 in 1958–59, while exports to New Zealand amounted to £2,653 and those to Pacific Islands to £6,032.

No duties are chargeable on goods imported into Australia from Norfolk Island if the goods are (a) the produce or manufacture of Norfolk Island; (b) shipped direct to Australia; and (c) not goods which if manufactured or produced in Australia would be subject to excise duty.

A shipping service to the island is maintained at approximately seven-week intervals by Burns Philp & Co. Ltd., Sydney. The route is from Sydney via Norfolk Island to the New Hebrides, Solomon Islands and other island groups and thence back to Sydney. Shipping between the island and New Zealand is infrequent.

The construction of the aerodrome on the island was completed during 1943. A fortnightly passenger and air freight service between Sydney and Norfolk Island maintained by Qantas Empire Airways Ltd. extends to New Zealand under charter to Tasman Empire Airways Ltd.

There are approximately 50 miles of usable road on the island. As a substantial section of the population possesses private motor cars, and taxi-cab services are available, transport is almost exclusively by motor vehicle.

The cable from Great Britain via Vancouver, Fanning Island, and Fiji bifurcates at Norfolk Island, one line connecting with New Zealand, the other with Brisbane. Until 10th June, 1947, the post office at the island was part of the Commonwealth postal system, but as from that date Norfolk Island was established as a separate postal administration with its own issue of stamps.

6. Social Condition.—Education is free and compulsory up to the age of fifteen years. The school conforms to the Australian standard of public education, ranging from kindergarten to the intermediate certificate, with a two years' super-primary course of instruction in cultural subjects and in woodwork, needlework, leatherwork, basketry and hat-making. The teachers are provided by the New South Wales Education Department, but they are paid by the Norfolk Island Administration. The number of scholars enrolled at 30th June, 1958, was 150. Free dental service is provided for school children.

The Court of Norfolk Island is a court of record with dual jurisdiction. Sitting in its limited jurisdiction, the Court has power to hear and determine actions of claims not exceeding £30 and to punish summarily all crimes and offences involving a pecuniary penalty or a sentence of imprisonment not exceeding six months. In its full jurisdiction, the Court can hear and determine all actions, punish all crimes and offences, grant probate and letters of administration, hear and determine appeals from any conviction of the Court sitting in its limited jurisdiction, and exercise authority in all other matters. An appeal lies to the High Court of Australia from any judgment, order, decree or sentence of the Court sitting in its full jurisdiction when constituted by a Judge or the Chief Magistrate.

7. Finance.—The revenue of the Territory, together with an annual grant from the Commonwealth Government for administrative expenses, is paid to the credit of the Norfolk Island Trust Fund, and advances for administrative and developmental expenses are drawn from the account. The principal items of revenue and expenditure for the five years 1955–56 to 1959–60 were as follows:—

NORFOLK ISLAND: REVENUE AND EXPENDITURE.
(£.)

Item.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
REVENUE.					
Commonwealth Subsidy	26,600	37,000	33,133	31,000	32,000
Customs Duties	10,711	11,016	10,439	13,045	12,884
Sale of Liquor	7,702	7,108	8,721	8,418	9,021
Post Office	9,322	8,780	4,886	7,853	16,620
All Other	33,021	12,263	12,058	12,785	11,479
Total Revenue	87,356	76,167	69,237	73,101	82,004
EXPENDITURE.					
Administrative	21,493	22,745	23,030	23,091	24,196
Miscellaneous Services	42,507	25,427	25,016	29,012	26,915
Repairs and Maintenance	14,545	6,910	7,138	10,381	10,406
Capital Works and Services	3,214	2,939	7,640	19,901	12,748
Postal Services	4,925	3,257	3,507	3,055	5,211
Total Expenditure	86,684	61,278	66,331	85,440	79,476

PAPUA AND NEW GUINEA.

§ 1. Administration.

Following the outbreak of war, civil administration in Papua and in New Guinea was suspended on 11th February, 1942, and military control commenced. The Territory of New Guinea came under Japanese occupation in 1942, but the greater part had already been recaptured by Australian and Allied Forces when the Japanese surrendered in August, 1945. Information relating to the transfer back from military to civil control under the Papua-New Guinea Provisional Administration Act 1945-1946 may be found in Official Year Book No. 39 and earlier issues.

The Papua-New Guinea Provisional Administration Act 1945-1946 was repealed by the Papua and New Guinea Act 1949 which came into force on 1st July, 1949. The latter Act approved the placing of the Territory of New Guinea under the International Trusteeship system and provided for an Administrative Union of the Territory of Papua and the Territory of New Guinea with one Administrator, one Supreme Court and one Public Service.

Provision was made for an Executive Council of not less than nine officers of the Territory, who shall be appointed by the Governor-General, and a Legislative Council consisting of twenty-nine members, namely:—(a) the Administrator; (b) sixteen officers of the Territory (who shall be known as official members); (c) three non-official members possessing such qualifications as are provided by Ordinance and elected, as provided by Ordinance, by electors of the Territory; (d) three non-official members representing the interests of the Christian missions in the Territory; (e) three non-official native members; and (f) three other non-official members.

The Legislative Council was inaugurated on 26th November, 1951, by His Excellency Sir John Northcott, while Administrator of Australia.

In October, 1960, the Commonwealth Parliament passed amendments to the Papua and New Guinea Act which will change the composition of the Legislative Council during 1961; the new Council will consist of 37 members, namely:—(a) The Administrator; (b) 14 official members (who may be either native or non-native); (c) 12 elected members (six elected by natives and six by non-natives); and (d) 10 nominated members of whom at least five will be natives. Eventually, elected members will be chosen by voters of all races registered on a common roll.

§ 2. Finance.

The following table shows particulars of the financial operations of the Papua and New Guinea Administration for the years 1955-56 to 1959-60. Further information on each Territory will be found on pages 137 and 145.

TERRITORY OF PAPUA AND NEW GUINEA: REVENUE AND EXPENDITURE.

(£.)

Particulars.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
REVENUE.					
Taxation—					
Income Tax					1,812,963
Customs Duties	2,437,320	2,493,895	2,746,977	3,373,528	2,411,529
Motor Registration	47,994	54,520	62,136	71,733	77,770
Stamp Duties	35,756	50,688	86,589	68,357	81,672
Licences	30,130	27,633	31,255	29,433	31,337
Personal			103,486	153,772	175,489
Business Undertakings—					
Post Office	141,737	245,199	296,022	354,272	412,428
Harbour Dues, Wharfage, etc.	75,252	76,686	116,836	155,082	156,323
Electricity Supply	229,784	305,805	380,945	436,863	471,060
Sale of Timber	133,094	122,609	136,529	126,768	128,497
Copra and Rubber Production	69,722	16,742	22,690	26,321	43,762
Other Agricultural Production	17,564	23,525	39,076	56,714	84,857
Water Supply and Sewerage	16,946	16,922	18,676	17,876	22,800
Transport				43,029	40,795
Lands—					
Mining—					
Royalty on Gold	54,663	59,103	15,825	6,438	9,230
Other	9,589	9,467	10,446	9,612	8,650
Forestry	75,832	81,674	81,555	81,529	101,415
Land Sales, Rents, etc.	81,329	71,370	147,766	110,449	99,675
Commonwealth Grant	8,433,823	9,645,090	10,796,491	11,478,910	12,808,282
Fees and Fines	76,740	113,822	135,918	155,565	159,940
All Other	329,872	384,050	292,304	327,406	263,736
Total	12,297,147	13,798,800	15,521,522	17,083,657	19,402,210
EXPENDITURE.					
Business Undertakings—					
Post Office	546,510	540,104	607,037	696,001	815,305
Harbours	106,755	93,444	88,158	133,579	138,773
Electricity Supply	359,192	395,333	289,742	380,226	409,070
Saw-mill	99,700	101,151	82,247	90,370	84,397
Water Supply and Sewerage	109,354	119,478	114,002	124,116	120,416
Social Expenditure—					
Education	602,906	803,991	859,159	1,055,674	1,315,243
Grants to Missions for Education	102,045	99,226	180,605	194,689	261,093
Public Health, Hospitals, etc.	1,921,634	1,965,858	1,673,676	1,738,009	2,115,460
Mission Medical Services—Grants	245,701	274,258	232,239	267,061	286,233
Law, Order and Public Safety	707,925	763,202	575,306	627,094	862,115
District Services and Native Affairs—	1,070,713	1,120,516	1,013,017	1,106,568	1,246,727
Capital Works and Services	3,332,416	3,713,897	4,326,456	4,608,033	4,822,424
All Other	2,941,941	3,746,079	5,474,359	6,056,017	6,855,391
Total	12,146,792	13,736,537	15,516,003	17,077,437	19,332,647

§ 3. Agriculture and Animal Industry.

1. Soils.—Although a large proportion of Papua and New Guinea is covered by skeletal soils unsuitable for agriculture, there are extensive areas in all parts where fertile soils occur, suitable for growing a wide range of crops. Most of the agriculture of the Territory up to the present has been on soils on the coastal plains, which, apart from the swamp soils, consist mainly of alluvium and podsolized alluvium. So far, these have been

mostly under coconut plantations, although other crops such as rubber and cocoa have also been grown. The swamp soils, of which there are extensive areas in the Delta plains and other parts of the Gulf of Papua, and in smaller areas, are found intermittently around the coasts and along the lower reaches of the rivers, and are in general quite unsuited to any form of agricultural development.

Volcanic soils probably offer the greatest prospects for development. They are found mostly on the Central Plateau and southern foothills of the main island, but there are also areas in New Britain (particularly in the Gazelle and Willaumez Peninsulas), Bougainville and New Ireland, as well as in numbers of smaller islands. Other rich soils are the alluvials of the river valleys. The largest single area of this type is in the trough occupied by the Ramu and Markham Rivers.

2. *Climate.*—The climate, particularly the rainfall, over so wide an area as Papua and New Guinea, with its numerous islands and varying elevations, naturally presents many variations. Generally speaking, the climate is moist and tropical, except at high altitudes. There are only small differences in both daily and seasonal extremes. The Territory has no winter and summer, and thus no great variation in day-length over the year. The two seasons which are experienced are generally described as the "south-east" and the "north-west", corresponding with the periods of the year when the south-east trade winds and the north-west monsoons direct the main Territory air-flow. The south-east season prevails approximately from May to October, the trade winds attaining maximum velocities during July and August. The north-west monsoon operates over a considerably shorter period, from the end of December to about March. During the periods between these seasons, November and early December, and about March to April, there are two short spells of calm weather.

Rainfall varies considerably, from an average annual rainfall of 245 in. at Gasmata in New Britain and 231 in. at Kikori in Papua, to about 88 in. at Wewak in New Guinea and 40 in. at Port Moresby.

Although the Territory has no summer and winter, it has a wide temperature range, due to differences in altitude, varying from an absolute highest temperature of about 100° F. along the coast, to freezing point on its highest peak, Mt. Wilhelm (15,400 ft.).

Humidity in the Territory is very high throughout the year. Some coastal stations register an average relative humidity of more than 90 per cent. Humidities below 60 per cent. are rare at coastal stations, average figures varying from 80 per cent. at 9 a.m. to 65 per cent. at noon and 75 per cent. at 3 p.m. Humidity in mid-mountain forests appears to be higher than in the lowlands, while in the mossy forests there are periods when the whole belt is saturated.

3. *Land Tenure.*—There is considerable variation throughout the Territory in the nature of customary ownership of land. In most areas, some rights remain in the landholding group and individuals within the group have limited rights of use, either for life or for a shorter period. Thus the normal system by which the rights of ownership in land use are acquired is by birth to a landholding group. Transfer of rights between individuals by sale and purchase appears to have been unusual in the past, but this practice is now an established custom in some localities and appears to be increasing. Inheritance may be based on either patrilineal or matrilineal descent, or both. In parts of the Territory, however, there is a tendency for the whole inheritance system to change, particularly in communities where it is based on matrilineal descent. Following a close study of the problems in relation to land holdings by natives, the Government has laid down the following broad principles of policy:—

- (i) The ultimate and long-term objective in Papua and New Guinea is to introduce throughout the Territory a single system of land holding regulated by the central Government by statute, administered by the Department of Lands of the central Government, and providing for secure individual registered titles after the pattern of the Australian system.
- (ii) Only the central Government (i.e. the Administration working through the Department of Lands and the Registrar of Titles) may issue and register land titles.
- (iii) Land subject to native custom remains subject to native custom only until it is taken out of custom either by acquisition by the Administration or by a process, to be provided for by Ordinance of the Territory, of conversion of title to an individual registered title.

- (iv) Upon either acquisition or conversion of title, compensation is to be provided in respect of extinction of rights under native custom.
- (v) Land held under native custom may not be acquired outside of native custom by other than the Administration.
- (vi) For the time being, land may not be acquired by the Administration unless the native owners are willing to sell and in the opinion of the Administration the land is not required by them; and conversion of title from native custom to individual registered title may take place only if the majority of those interested in the land under native custom consent to conversion and the method of conversion.
- (vii) The services of Native Land Commissioners are to be used, as a first priority, on investigations into claims by the Administration that land is ownerless and may therefore be declared administration land, on investigation into the ownership under native custom of land proposed to be acquired by the Administration, on settlement of disputes about the ownership of land held under native custom, and, when legislative provision has been made, on investigations into the rights held under native custom in land proposed to be converted to individual registered title. The aim is that all the time of the Commissioners should be taken up with this work. To the extent that at any time it is not, the Commissioners should continue investigations into the holding of land under native custom; the results of such investigations are to be recorded for use in connexion with future acquisitions or conversions of title, but are no longer to be registered.

4. **Suitable Crops.**—The crops which can be grown in Papua and New Guinea include coconuts, rubber, tea, coffee, cocoa, jute, kenaf, manila hemp, sisal, rice, pepper, tobacco, peanuts, kapok, cassava, ginger, cinchona, nutmeg, vanilla, tropical fruits and vegetables, sago and tung oil, but of these, the only crops of any commercial importance are coconuts, coffee, cocoa, peanuts and rubber.

5. **Plantation Agriculture.**—*Coconuts.* Territory coconut plantations suffered severely from damage and neglect during the 1939–45 War. Rehabilitation was rapid, however, and, in 1958–59, about 500 plantations together with native coconut stands produced 64,009 tons of copra valued at £5,754,165 for export. In addition, 21,541 tons of coconut oil valued at £2,754,351 and about 8,705 tons of coconut meal and cake valued at £178,759 were exported in 1958–59. A copra crushing mill was established at Rabaul in 1952. Native stands produce about 25 per cent. of the copra exported.

Rubber. Rubber exports have increased from an average of 1,352 tons a year during the three years 1937–38 to 1939–40 to 4,380 tons in 1958–59, valued at £1,151,871.

Cocoa. Exports of cocoa beans increased from 207 tons in 1949–50 to 4,253 tons in 1958–59, valued at £1,491,847.

Coffee. Exports of coffee beans increased from 21 tons in 1949–50 to 969 tons in 1958–59, valued at £456,037.

6. **Native Agriculture.**—Most of the native inhabitants of Papua and New Guinea are agriculturalists producing fruit and vegetables for their own consumption. The crops grown vary according to environment and altitude, and include yams, taro and sweet potatoes, coconuts, bananas, papaws, maize, sugar-cane, cassava, beans, peanuts, rice, cucurbits and tobacco. Sago is the staple food in the extensive semi-inundated areas which occur along the lower valleys of the major rivers. In these areas, it is cut largely from naturally occurring stands. In other parts of the country, small areas of sago are grown along stream banks and in swampy patches and are regarded as a reserve in times of poor harvest. In recent years, the natives have taken up the production of introduced crops such as peanuts, rice, cucurbits and maize for their own consumption and cocoa and coffee for export. In coconut areas, large quantities of copra are produced. In 1958–59, native copra production was estimated at about 24,400 tons.

In many localities, the natives follow a farming system known as “Bush Fallowing Rotation”. The inhabitants of each village have, at any one time, a number of distinct and separate cleared garden areas in the land surrounding the village. The garden clearings

may be located some miles from the village and are not usually contiguous. Each garden area may be made up of a number of distinct plots owned by individual natives or families. Communal ownership of gardens is rare. The number of garden clearings (and their area) attached to each village depends on the size of the village and the fertility of the land.

The method of cultivation followed is for the jungle trees to be felled and undergrowth cleared with axes and knives, the larger trees usually being left standing. The timber and foliage is allowed to dry out and then burnt. In some localities, there is a little cultivation before the crops are planted, and root vegetables are placed in holes dug with a stick. In other places, however, there is careful preparation of the soil. Some weeding is done while the crops are growing. After harvesting, a second crop is rarely planted immediately in that garden area, but a new area of land is selected, cleared, burnt and planted. The natives return to the first area to harvest fruit from trees, such as papaw and banana, that may have been planted in the garden, but these are soon submerged in the new jungle growth which quickly appears. The plot is allowed to lie fallow for a number of years, the period varying from 7 to 10 years or even longer, depending upon the local population pressure. During this time, high secondary jungle has probably grown. Ultimately the natives return to the original plot, and clear, burn and plant again. The cycle continues year by year throughout the agricultural land belonging to the village. The foregoing is a broad generalization of the method followed. There are, however, many variations.

The growing of food is done by both the men and women. The division of work is usually clearly defined within the village itself but this division is not necessarily the same in all areas. Generally it is found that felling the forests is always done by the men, and carrying the harvested food home to the village is nearly always done by the women. Other work, however, such as cultivating, planting and weeding may be done by either men or women according to the customs of the particular village or area.

The advancement of native agriculture for local food supply and improved land use in village gardens, as well as for economic production of crops for sale, has a high priority in Government policy for the Territory.

7. **Animal Industry.**—Livestock in the Territory as at 31st March, 1959, included cattle, sheep, goats and pigs, approximate figures for each species being:—cattle, 12,000; sheep, 1,000; goats, 4,000; and pigs, 4,000. Other livestock includes horses, mules and poultry. These figures represent European-owned livestock only; native-owned livestock consists almost entirely of pigs and poultry.

A number of British breeds of cattle are represented in Territory herds. For dairying, Jersey and Australian Illawarra Shorthorns are most popular; Black Polled, Polled and Horned Shorthorns, and Red Polled cattle are raised for meat production. Under good management these breeds have done well in the Territory.

Most of the sheep now in the Territory are Romney Marsh breed located at Nondugl in the highlands of New Guinea.

The introduction of rabbits, foxes, hares and monkeys into the Territory is prohibited.

8. **Co-operative Societies.**—The following table sets out details of the number of societies, members, etc., for the year ended 31st March, 1960:—

CO-OPERATIVE SOCIETIES: YEAR ENDED 31st MARCH, 1960.

Type of Society.	Number of Societies.	Number of Members.	Turnover.	Rebates to Members.	Total Capital.	Total Fixed Assets.
			£	£	£	£
Consumer Societies ..	9	1,535	103,320	..	22,538	10,733
Producer Societies ..	36	15,168	49,027	2,859	55,391	6,646
Dual Purpose Societies ..	173	54,948	1,010,104	42,854	403,956	52,887
Total	218	71,651	1,162,451	45,713	481,885	70,266

§ 4. Native Labour.

Most of the indigenous inhabitants are farmers who are mainly living a subsistence existence and are comparatively free of economic or other pressures forcing them into wage employment.

Labour policy is designed to serve the general aim of the advancement of the people of the Territory and the development of its resources, particularly by controlling the nature and rate of social change.

As from 6th October, 1960, previous native labour legislation was superseded by the Native Employment Ordinance 1958, which covers the great majority of native workers. The Ordinance divides the native labour force into three categories: agreement workers, casual workers and advanced workers.

Agreement workers are those who enter into an agreement with an employer to work for a specified period. The maximum agreement period for workers unaccompanied by their dependants is two years, but other workers may work for periods up to four years.

Casual workers are those workers who are employed without an agreement and their employment may be terminated at their own or the employer's desire at any time. Casual workers can only be employed within their own home sub-district except where the place of employment is within 25 miles of their home.

Workers who have a skill which should enable them to secure remunerative employment and whose education and social advancement enables them to look after themselves and their families properly on a cash economy may be classed as *Advanced Workers* and be issued with an Advanced Workers' Certificate. Advanced Workers may be employed anywhere in the Territory and be paid a cash wage which includes cash in lieu of rations, clothing and other articles as prescribed under the Ordinance.

The Ordinance prescribes a minimum cash wage of 325s. a year, equivalent to 25s. a lunar month. A minimum rate of 455s. per annum is payable to men engaged on heavy labour. In addition to the cash wage, an employer is required to provide the worker, free of charge, with rations, clothing and other articles such as blankets, eating utensils and toilet gear. Rations take into account the dietary needs of the worker and clothing and blanket issues vary according to location.

In addition, the employer is required to provide accommodation and to arrange for the movement of the worker from and to his home village at the beginning and at the end of the contract, without cost to the worker.

The Ordinance requires the employer to provide, free of charge, first aid equipment for the use of his employees and to provide medical supervision of the employees on a full time basis. Medical and hospital treatment is provided at the employer's expense.

Rations, clothing, etc., accommodation, medical and hospital care have also to be provided to the workers' dependants when accompanying him with the employer's consent.

The maximum working week without penalty rates is 44 hours and provision is made for overtime, call-out duty and a stand-by rate.

Provision is made under the Workers' Compensation Ordinance 1958–1960 for compensation in the case of injury or death.

Natives employed in the native constabulary come under the provisions of the Royal Papua and New Guinea Constabulary Ordinance 1955–1959, while those employed in the Auxiliary Division and the Third Division of the Territory Public Service come under the provisions of the Public Service Ordinance 1948–1958.

§ 5. Secondary and Tertiary Industries.

Secondary industries which have been established in the Territory are most frequently of the type associated with the elementary processing for export of local products such as copra, rubber, cocoa, coffee, passion-fruit and timber on or near the plantations. There has been a gradual growth in the manufacture of more highly processed products and industries already established include a paint factory, twist tobacco factories, a copra

crushing mill, a plywood factory, biscuit factories, soft drink factories and breweries. Large service industries already well established include air, sea and land transport services, and the building industry, which is serviced by sawmilling, joinery, furniture and metal industries, concrete products manufactures, brickworks, etc.

A wide variety of maintenance facilities is also available to service the various Territory industries including engineering workshops, slipways, etc.

PAPUA.

§ 1. General Description.

1. **Early Administration.**—Particulars of the early administration of Papua are given in Official Year Book No. 19, page 576.

2. **Administration by the Commonwealth of Australia.**—The Territory was placed under the authority of the Commonwealth on 1st September, 1906, by proclamation issued in pursuance of Letters Patent of 18th March, 1902, and was accepted by the Commonwealth by the Papua Act, 1905, which came into force by virtue of the aforesaid proclamation. The transfer was made under the authority of Section 122 of the Constitution. The Territory is under the control of the Commonwealth, but not included within it, and is divided into six magisterial districts, Southern Highlands, Western, Gulf, Central, Milne Bay and Northern.

3. **Area, etc.**—Papua lies wholly within the tropics. The northernmost point touches 5° S. latitude; its southernmost portion, comprising Tagula and Rossel Islands, lies between 11° S. and 12° S. latitude. It is separated from Australia by Torres Strait. The length of Papua from east to west is upwards of 920 miles; towards either end the breadth from north to south is about 200 miles, but about the centre it is considerably narrower. The Territory comprises also the islands of the Trobriand, Woodlark, D'Entrecasteaux and Louisiade groups. The length of coast-line is estimated at 3,664 miles—1,728 on the mainland, and 1,936 on the islands. The total area is about 90,600 square miles, of which 87,806 are on the mainland, and 2,794 on the islands. A reference to the physical characteristics of the Territory appears in previous issues of the Official Year Book (see No. 18, p. 633).

§ 2. Population.

1. **Non-indigenous Population.**—At the Census of 30th June, 1954, the non-indigenous population of Papua was 3,867 males, 2,446 females, 6,313 persons. Corresponding figures at the Census of 30th June, 1947, were, respectively, 2,057, 1,182 and 3,239.

The European population of Papua increased slowly, and with some reversals in trend, from less than 700 in 1906, the year in which the Territory came under Commonwealth control, to 1,343 at the Census of 1921. It numbered only 1,148 at the 1933 Census, but at the 1954 Census amounted to 5,295 (3,372 males and 1,923 females).

The non-European section of the non-indigenous population at 30th June, 1954, was 1,018, of whom 34 were full-bloods and 984 were half-castes with one of the parents a European. Comparable figures as at the 1947 and 1933 Censuses, respectively, were:—full-bloods—194 and 786; half-castes—503 and 227.

The estimated non-indigenous population at 30th June, 1959, was—Males, 5,214; females, 3,584; total, 8,798, consisting of Europeans, 7,801; Asians, 17; and Others (mainly half-caste), 980.

2. **Native Population.**—It is not possible to give exact data regarding the number of natives, because part of the interior is not as yet under complete Government control. However, the enumerated and estimated population of the Territory of Papua at 30th June, 1959 numbered 470,891 persons. This comprised 366,691 enumerated persons (194,359 males and 172,332 females) and 104,200 estimated. The total number was distributed through districts as follows:—Southern Highlands, 132,770; Western, 49,647; Gulf (including the former Delta district), 62,294; Central, 91,697; Milne Bay, 85,547; and Northern, 48,936.

§ 3. Taxation and Health.

1. **Taxation.**—The main forms of taxation are income tax, personal tax and import duties.

Income tax was imposed on 1st August, 1959, to operate from 1st July, 1959. The scale of taxation is about 50 per cent. of the tax payable on the same taxable income in Australia. Deductions for dependents the taxpayer is maintaining and maximum deductions for medical, dental and educational expenses are considerably higher than those allowed in Australia. The tax on public companies is at a flat rate of 4s. in the £1 which is a little over half the predominant rate of company tax in Australia, while on private companies the rate is 2s. 6d. in the £1 for the first £5,000 and 3s. 6d. for the remainder and generally, comparable deductions are allowed. On 1st January, 1958, a Personal Tax was introduced for all males (including non-indigenous) of 18 years of age and over, in Papua and New Guinea. The maximum tax is £2 per annum; the tax assessed is subject to the taxpayers' ability to pay and consequently large areas have been exempted. Native Local Government Councils (which are formed voluntarily by the natives) are however, empowered to levy taxes on villagers for the purpose of providing for local services carried out by the Councils. These taxes are set off against the native's Personal Taxation.

2. **Health.**—The Department of Public Health of the Territory of Papua and New Guinea has the general oversight of all dental and medical services. The Department has the following seven functional divisions: Medical Services; Preventive Medicine; Medical Training; Infant, Child and Maternal Health; Medical Research; Administration; and Mental Health. The services for the Territory of Papua are under the administrative control of a regional medical officer, with headquarters staff at Port Moresby.

At 30th June, 1959, the Administration had established 27 general hospitals, three special hospitals for the treatment of tuberculosis and Hansen's disease and one mental hospital; the Missions had established 19 general hospitals, with special wards at Balimo and Tari for the treatment of Hansen's disease. There were 348 village aid posts (87 Mission) and 146 maternal and child welfare clinics (45 Mission). School medical examinations, immunization, ante-natal and post-natal care and pre-school services are also provided. The Missions employ their own doctors and nurses in their medical establishments.

For some years, suitably qualified natives have attended the Central Medical School at Suva, Fiji, to be trained as Assistant Medical Practitioners and in auxiliary medical schools. In 1959, first year students were enrolled at the Papuan Medical College established in association with the Port Moresby General Hospital. Training for nurses and medical auxiliaries in many categories is also being provided.

The cases treated in hospital are mainly malaria, tropical ulcers, pneumonia, tubercular infections and tuberculosis, bronchitis and confinements.

§ 4. Land Tenure.

The basic principle of the land laws of Papua is that all land not specifically alienated by due process from the natives, or established to be vacant and ownerless, is native land. At 30th June, 1960, of the total estimated area of Papua, approximately 58,000,000 acres, only 2,201,571 acres had been alienated. The distribution of alienated land at 30th June, 1960, according to tenure, was as follows:—Held by private non-indigenous inhabitants—freehold, 24,280 acres, leasehold, 335,452 acres; held by administration, 1,773,642 acres; native reserves, 68,197 acres; total, 2,201,571 acres.

Although, as the figures above show, a small amount of freehold land exists in Papua, no further estates in freehold can be granted under the provisions of the Land Ordinance 1911–1953 of Papua. Leases of various kinds may be granted by the Administration. The principal types of leases available are agricultural leases, pastoral leases, leases of town allotments, business leases and residence leases of other than town allotments, and various forms of special leases and licences over land. Leasehold terms are liberal and, in general, leases may be granted for periods of up to 99 years. Rent is based on the unimproved value of the land. For agricultural leases, the rental rate per annum is 5 per cent. of the unimproved value and for pastoral leases the rate is 2½ per cent. Concessions

regarding freedom from, or reduction of, rents apply during the early developmental periods of agricultural and pastoral leases. All leases are subject to improvement conditions which may be varied or relaxed under certain circumstances. The following classes of leases were in force in Papua at 30th June, 1959:—Agricultural, 666—268,031 acres; pastoral 31—42,437 acres; residence, 161—232 acres; special 271—2,132 acres; mission 390—1,036 acres; business, 151—275 acres; town allotment, 792—347 acres; agricultural leases granted to missions, six—677 acres; total 2,468—315,167 acres.

Leases of Crown land are granted by the Administrator following a land use examination, advertisement of leases available and consideration of applications by the Land Board. Dealings in privately-owned land are a matter for private treaty. Native-owned land, however, cannot be acquired or leased from the native owners by private individuals. The Administration alone may purchase native-owned land, and then only if the owners are willing to sell and the Administration is satisfied that the owners do not require, and are not likely to require, the land.

The registration of titles, interests and dealings in alienated land is provided for under the Real Property Ordinance 1913–1955 modelled on the Torrens system of land registration. A start has been made on the recording of native land ownership under the Native Land Registration Ordinance 1952.

§ 5. Production.

1. *General*—The products of the Territory are obtained principally from its agricultural, forestry, mining and fishing industries. Native subsistence agriculture, fishing and hunting produce most of the food requirements of the native population. The main native agricultural products are taro, yams, sweet potatoes, bananas and papaws. Peanuts are becoming of increasing importance in native diet. Non-indigenous enterprise produces most of the commodities exported. Natives, however, do produce copra for export, while native enterprise in other fields of agricultural production for export purposes, e.g., cocoa and coffee, is being encouraged. The principal agricultural products of Papua for the export trade are copra and rubber. Native production of copra is increasing. Practically all the timber milled during 1958–59 was absorbed by local building requirements. The main products of fisheries exported from Papua are trochus and green snail shell. Gold, manganese, zinc-lead and copper ores have been mined in commercial quantities in the past but current production is limited.

For the sake of convenience, agricultural and pastoral conditions in Papua and New Guinea have been dealt with as a whole, and reference should be made to pages 132–5 for information on the soils, climate, crops, methods of cultivation, etc., throughout both Territories. The following paragraphs relate to forestry, mining, fisheries and water-power resources in Papua.

2. *Forestry*.—(i) *General*. A general description of the forest policy which applies in Papua as well as in the Trust Territory of New Guinea is given under the heading “Timber” on page 148.

(ii) *Timbers*. Mixed species tropical rain forest covers most of Papua, although north-east of Port Moresby there is an area of monsoonal savannah country. Because of the mixed nature of the timbers in any one area, their utilization on an economical basis is somewhat difficult. Kwila, the most important hardwood found in millable quantities in Papua and New Guinea occurs in important stands east of Port Moresby. Mangroves occur in large areas fringing the Gulf of Papua.

(iii) *Survey Work*. Forestry field work is carried out in Papua with a view to assessing the forest resources available and also to survey areas subsequently made available for cutting.

(iv) *Permits*. At 30th June, 1959, 21 permits and 11 licences were current. The total areas of forest involved were 117,473 acres and 48,968 acres respectively. The total number of mills was 12, and the total sawn-timber produced for the year was 2 million super. feet, most of which was used locally.

3. *Mining*.—(i) *Variety of Minerals*. Although a large number of minerals have been found in Papua including platinum, gold, silver, copper, tin, lead, zinc, cinnabar, iron, osmiridium, manganese, sulphur, chromite, gypsum and lignite, most deposits are not of economic importance.

Gold was discovered in 1888 and has been found since in many parts of Papua. Before the 1939–45 War, gold was an important item in the Territory's production and it was the major export in 1938–39 (valued at more than £150,000), but has dwindled to insignificance since the war. Gold production was 1,065 fine oz. in 1954–55 and 491 fine oz. in 1955–56 compared with an average of almost 28,000 fine oz., for the last three pre-war years. During 1959–60, the production of gold realized £1,937 bringing the total value of gold won up to 30th June, 1960, to £3,345,364.

Large quantities of copper ore were mined and exported up to 1940. Good samples of galena (sulphide of lead) have been obtained, but other minerals are not found in commercial quantities.

(ii) *Oil Search.* Since the search for oil began in Papua in 1911, over £30 million has been spent. The existence of petroleum has been traced at scattered intervals over a large area, but commercial quantities have not been discovered. At 30th June, 1960, four companies held petroleum prospecting permits under the provisions of the Petroleum (Prospecting and Mining) Ordinance 1951–1958. Oil prospecting is, at present, confined mainly to the Gulf and Western Divisions.

4. *Fisheries.*—Surveys have been carried out of the fisheries resources of Papua. These have been demonstrated to be considerable and efforts are being made to increase the small degree of utilization. Shell fishing, particularly trochus, provides the main cash return, exports being valued at £26,580 in 1958–59.

5. *Water Power.*—Most of the rivers in Papua carry a large volume of water from a great height over a relatively short distance, thereby offering opportunities for the installation of hydro-electric power plants. It is estimated that there is at least 10 million horse-power available for this purpose.

§ 6. Trade, Transport and Communication.

1. *Customs Tariff.*—The present customs tariff provides high revenue rates on ale, spirits, tobacco and cigarettes, timepieces, cigarette papers, fancy goods and jewellery but allows entry of most necessities affecting living and building costs duty free, or at a low rate of duty. There is a by-law provision under the Customs Tariff to enable duty-free admission to be granted for plant, machinery and chemicals to be used mainly for industrial and developmental purposes and for goods imported by passengers. No preferential rates are specified in the schedule. Export duties imposed on copra, cocoa, rubber, mother-of-pearl, trochus and burgos shell and gold were repealed in July, 1959.

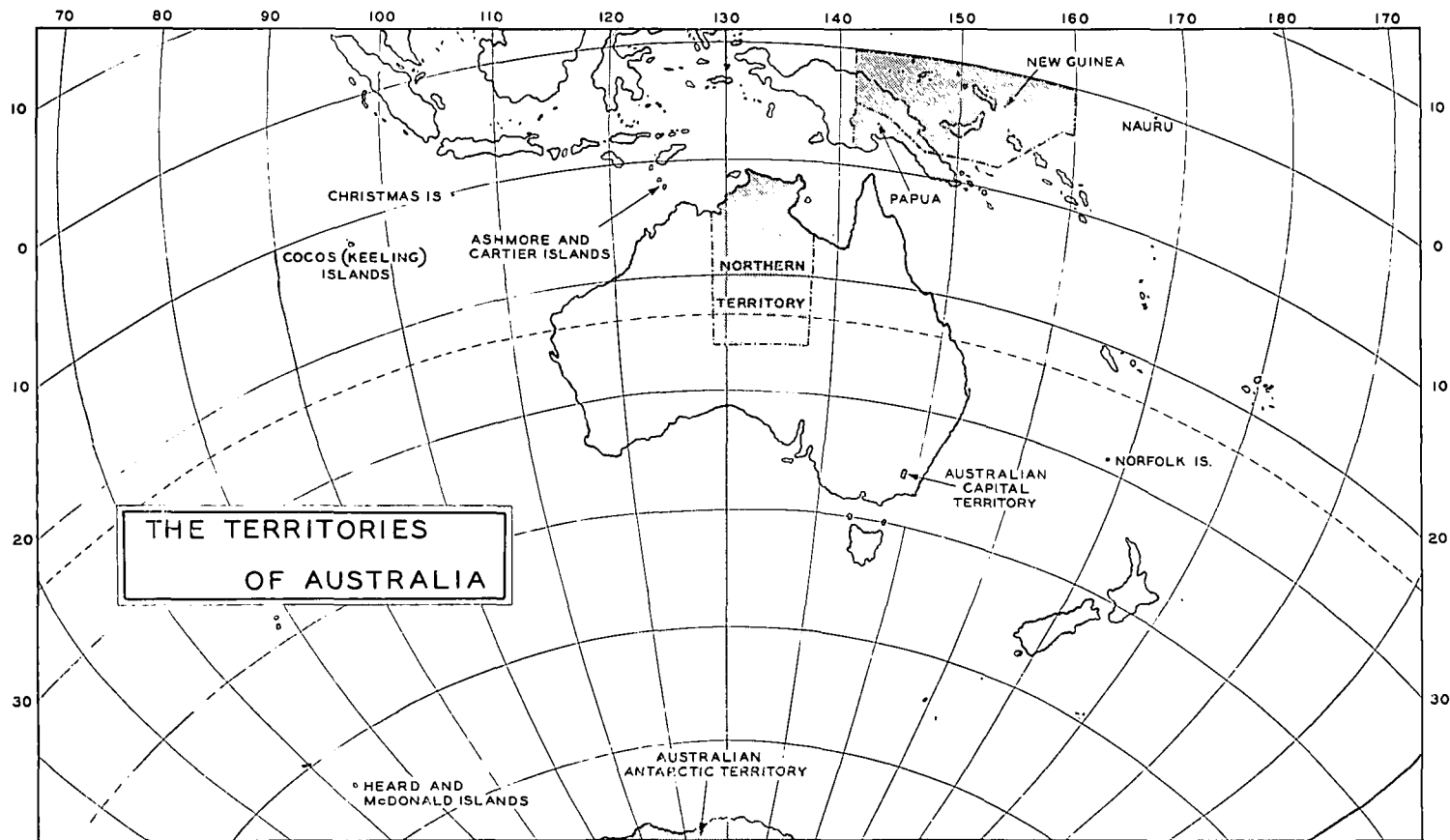
Provision is made in the Australian Customs Tariff (Papua and New Guinea Preference) 1936 for the free entry into Australia of certain goods produced in and imported direct from Papua (*see* Chapter XIII.—Trade), and a proclamation of 25th September, 1935, exempted from primage duty goods produced or manufactured in the Territory.

2. *Imports and Exports.*—(i) *Total Values.* The table below summarizes the values of imports and exports for the years 1954–55 to 1958–59.

TERRITORY OF PAPUA: IMPORTS AND EXPORTS.

(£ f.o.b.)

Particulars.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
<i>Imports</i>	7,471,221	8,975,834	8,661,252	8,786,758	8,249,906
<i>Exports—</i>					
Domestic Exports ..	2,517,526	2,965,559	2,261,734	2,082,667	2,564,551
Re-Exports	308,170	398,976	504,588	693,385	1,040,909
<i>Total Exports</i> ..	2,825,696	3,364,535	2,766,322	2,776,052	3,605,460



(ii) *Imports.* The following table shows the countries of origin of imports. Since the 1939-45 War, Australia has supplied a far greater proportion of the imports than in pre-war years.

TERRITORY OF PAPUA: COUNTRY OF ORIGIN OF IMPORTS.
(£.)

Country of Origin.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Australia	5,119,030	5,759,504	5,838,299	5,632,004	5,684,265
Canada	6,473	7,254	7,657	101,575	4,871
Germany (Federal Republic) ..	(a)	144,273	103,576	141,409	135,715
Hong Kong	147,786	163,424	151,555	209,398	193,364
Indonesia	(a)	228,979	376,521	239,206	353,697
Japan	(a)	216,731	153,394	190,702	234,419
United Kingdom	619,807	1,131,401	550,585	689,640	562,596
United States of America ..	804,331	1,020,436	1,118,046	1,219,289	749,079
Other Countries	773,794	303,832	361,619	363,535	331,900
Total Imports ..	7,471,221	8,975,834	8,661,252	8,786,758	8,249,906

(a) Not available, included in "Other countries".

(iii) *Exports.* (a) *Countries of Destination.* The countries of destination of exports from Papua are shown below.

TERRITORY OF PAPUA: COUNTRY OF DESTINATION OF EXPORTS.
(£.)

Country of Destination.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Australia	2,231,659	2,699,059	2,240,392	2,200,285	2,982,549
United Kingdom	536,724	610,832	396,921	386,532	485,833
Other Countries	57,313	54,644	129,009	189,235	137,078
Total Exports ..	2,825,696	3,364,535	2,766,322	2,776,052	3,605,460

(b) *Principal Commodities.* The following table provides details of the value of the principal domestic exports for the same years. The decrease in value of total domestic exports during 1956-57 and 1957-58 was caused mainly by decreases in the prices of copra and shell.

TERRITORY OF PAPUA: PRINCIPAL DOMESTIC EXPORTS.
(£.)

Commodity.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Rubber	953,623	1,386,787	1,148,542	1,114,716	1,151,871
Copra	1,381,372	1,390,068	942,286	847,472	1,303,017
Cocoa Beans	13,314	8,759	7,717	13,825	23,275
Gold	16,548	8,837	5,911	7,093	6,408
Shell (Marine)	111,652	137,938	101,265	43,276	26,580
Crocodile Skins	22,136	23,791	26,568	35,579	15,345
Other	18,881	9,379	29,445	20,706	38,055
Total Domestic Exports ..	2,517,526	2,965,559	2,261,734	2,082,667	2,564,551

3. **Shipping.**—In 1958–59, 173 British vessels and 16 of other nationalities called at Territory ports and discharged 96,672 tons of cargo and loaded 27,969 tons. Corresponding figures for 1957–58 were 157, 17, 95,019 and 25,667 respectively.

Regular passenger and freight services operate between Australia, New Guinea and Papua. Vessels trading between Australia and the East also call at Territory ports, and there are occasional ships to the United Kingdom, vessels of one shipping line trading between the United Kingdom and Australia calling at Port Moresby approximately at quarterly intervals. Coastal and inter-island shipping services are maintained by vessels operating from the two principal ports of Port Moresby and Samarai.

4. **Other Forms of Transport and Communication.**—Air services link Papua with Australia, New Guinea and the British Solomon Islands. There were 48 aerodromes and seaplane alighting areas in Papua at 30th June, 1958, and of these 17 were the responsibility of the Department of Civil Aviation, 21 were operated and maintained by the Administration, and 10 owned and maintained by Missions, plantation and mining interests. Much of the internal traffic and freight is carried on a charter basis. Regular air services operate from Port Moresby to Daru in the West, Samarai and Popondetta in the East, and to various centres in New Guinea.

At 30th June, 1959, there were about 1,460 miles of road in Papua, of which 437 miles were suitable for medium and heavy traffic, the greater proportion being located in the Central and Northern Districts.

Telephone services operate in the main centres. The radio station at Port Moresby for both transmission and reception is jointly shared by the Overseas Telecommunications Commission and the Administration. The former provides a service between Papua, Australia and the Territory of New Guinea, while the latter operates radio telephone and radio telegraph services from Port Moresby and Samarai to outstations.

Medium and short-wave programmes are broadcast from the Australian Broadcasting Commission stations 9PA and VLT located at Port Moresby.

§ 7. Finance.

The principal source of revenue for the Territory is the annual grant received from the Commonwealth Government, which amounted to £4,948,361 in 1959–60. Customs duties were next in importance prior to 1959–60, but in that year income taxes, collected for the first time, took second place. The following table shows the principal items of revenue and expenditure for each year from 1955–56 to 1959–60:—

TERRITORY OF PAPUA: REVENUE AND EXPENDITURE. (£.)

Item.	1955–56.	1956–57.	1957–58.	1958–59.	1959–60.
REVENUE.					
Commonwealth Grant ..	3,532,086	4,146,911	4,607,669	4,772,537	4,948,361
Customs Duties(a) ..	910,752	867,697	969,688	1,135,095	868,813
Income Tax ..	..	..	..	..	882,558
All Other ..	540,711	633,496	829,317	914,279	1,017,446
Total Revenue ..	4,983,549	5,648,104	6,406,674	6,821,911	7,717,178
EXPENDITURE.					
Capital Works and Assets ..	1,674,088	1,870,133	2,262,548	2,041,676	1,996,824
Maintenance ..	605,510	836,311	589,910	784,932	862,487
Public Health ..	647,975	703,704	652,350	709,654	899,370
Native Affairs ..	315,574	341,015	332,970	396,939	446,895
Education ..	246,663	341,574	378,489	450,961	672,504
All Other ..	1,343,383	1,493,104	2,184,888	2,431,529	2,769,535
Total Expenditure ..	4,833,193	5,585,841	6,401,155	6,815,691	7,647,615

(a) Includes Harbour Dues and Wharfrage.

For particulars of the finances of the combined Territory administration, *see* page 132.

TRUST TERRITORY OF NEW GUINEA.

§ 1. General Description.

The land area of the Territory of New Guinea is about 93,000 square miles and the area, including the sea, within the lines drawn through its extreme outer points is more than one million square miles. As the coast lines have not been completely surveyed, the areas of the various islands are known only approximately.

The approximate areas of the principal islands, together with the small islands adjacent thereto, are as follows:—North-East New Guinea, also called the mainland, 70,200 sq. miles; Bismarck Archipelago—New Britain, 14,100 sq. miles, New Ireland, 3,340 sq. miles, Lavongai, 460 sq. miles, Admiralty Islands, 800 sq. miles, total Bismarck Archipelago, 18,700 sq. miles; Solomon Islands—Bougainville, 3,880 sq. miles, Buka, 220 sq. miles, total Solomon Islands, 4,100 sq. miles; grand total, 93,000 sq. miles.

Information regarding physiography and climate will be found in Official Year Book No. 22, page 613, and in the *Official Handbook of the Territory of New Guinea*.

§ 2. Government.

1. **The Military Occupation (1914-18 War).**—On 17th September, 1914, the Acting Governor of German New Guinea signed terms of capitulation with the officer commanding a Naval and Military Expedition sent from Australia, and thereafter the Territory was under military administration until the establishment of Civil Government on 9th May, 1921.

2. **Mandate (1920).**—In 1919, it was decided by the Principal Allied and Associated Powers that the Territory of New Guinea, which Germany gave up as one of the terms of peace, should be entrusted to the Government of the Commonwealth under Mandate from the League of Nations. However, the issuing of the Mandate was delayed and it was not until 17th December, 1920, that its terms were settled, and the Mandate itself did not reach Australia until April, 1921.

The terms of the Mandate are given in Official Year Book No. 33 (*see p. 264*).

3. **1939-45 War.**—For the events following the outbreak of the Pacific War and the formation of the Papua-New Guinea Provisional Administration in 1945, *see* page 131 of this chapter and earlier issues of the Official Year Book.

4. **Trusteeship (1946).**—The Commonwealth Government undertook to place the Territory of New Guinea under the Trusteeship System established under the Charter of the United Nations. The Trusteeship Agreement for the Territory, under which the Government of Australia is the sole administering authority, was approved by the General Assembly of the United Nations Organization on 13th December, 1946. The terms of the Agreement are shown in Official Year Book No. 39, pages 355-7.

5. **Administration.**—For particulars of the administration of the Territory of New Guinea prior to the setting-up of the Papua and New Guinea Administration *see* Official Year Book No. 36 and earlier issues.

For administrative purposes, the Territory is divided into the following nine districts:—New Britain, comprising New Britain and adjacent islands; Morobe, Madang, Eastern Highlands, Western Highlands, and Sepik on the mainland; New Ireland, comprising New Ireland, Lavongai and adjacent islands; Manus, comprising the Admiralty Group; and Bougainville in the Solomon Islands. Each district is administered by a District Commissioner.

§ 3. Population.

1. **Non-indigenous Population.**—At the Census of 30th June, 1954, the non-indigenous population of the Territory was 7,201 males, 4,241 females, 11,442 persons. The total non-indigenous population at the Censuses of 1921, 1933 and 1947 was, respectively, 3,173, 5,216 and 6,200 persons. At 30th June, 1959, the estimated non-indigenous population was 9,065 males, 6,205 females, 15,270 persons, of whom 11,177 were Europeans, 2,898 Asians and 1,195 other races.

The European population of the Territory increased from 64 in 1885 to 3,191 at the Census of 1933, and it reached its pre-war peak of 4,608 in 1939. At the 1954 Census, the European population numbered 8,020 (5,185 males and 2,835 females).

Malays seem to have been the first Asians brought by the Germans to German New Guinea; 37 of them were recorded on the mainland in 1885. About 1889, the New Guinea Company began to bring Chinese, Malays and Javanese in growing numbers from Singapore and Java to work on the plantations; in 1892, there were about 1,800 Asians on the mainland. By 1898, the number had decreased to 300 or 400, but it had risen to 1,830 at the time of the 1933 Census, and at 30th June, 1941, numbered 2,228, mostly Chinese. At the Census of 30th June, 1954, non-European full-bloods numbered 2,404, of whom Chinese (2,192) constituted the major proportion, while half-castes with one of the parents a European numbered 1,018.

2. Native Population.—The enumerated and estimated native population of the Territory as at 30th June, 1959, numbered 1,360,639 persons, comprising enumerated, 1,282,639 (674,971 males and 607,668 females), and estimated, 78,000. The total population was distributed throughout the several districts as follows:—Eastern Highlands, 333,727 persons; Western Highlands, 256,336; Sepik, 239,741; Madang, 133,483; Morobe, 186,599; New Britain, 102,405; New Ireland, 38,391; Bougainville, 53,130; Manus, 16,827.

§ 4. The Natives.

1. General.—The natives are divided into two main groups—Melanesian and Papuan—the former, with a few exceptions, constituting the population of the Bismarck Archipelago, the Solomon Islands, and the coastal districts of the New Guinea mainland, the latter inhabiting the interior of the mainland. Some tribes of Negritos exist in the mountains of New Guinea. There is a strain of Papuan, and possibly, of Polynesian blood in the Admiralty Islanders, while the Western Islanders and the inhabitants of the small islands east and south-east of New Ireland are Micronesians. (*See Official Year Book No. 16, p. 670, and Official Handbook of the Territory of New Guinea, Pt. V.*)

2. Research Work.—Research work among the native peoples of New Guinea was initiated under the German Administration and this work has been continued since on a wider scale.

3. Education.—Education in the Territory is provided by the Administration and various Mission organizations. Schools for natives have also been established by Native Village Councils. The Education Ordinance 1952–1957 enables the Administrator to establish an education advisory board, district education committees and European and native schools and to grant financial aid for educational purposes. European teachers are recruited from Australia, and native teachers are trained in the Territory by the Administration and the Missions. During the year ended 30th June, 1959, 189 schools were maintained by the Administration for 12,517 children, of whom 863 were Europeans, 341 Asians, 102 of mixed race and 11,211 natives. The total number of pupils in the various grades of mission schools was 112,142, of whom there were 190 Europeans, 164 Asians and 234 of mixed race. To assist the educational work of the Missions, the Administration provides expert advice, educational equipment, and text-books. In addition, the sum of £133,889 was distributed among the Missions as grants-in-aid during the year ended 30th June, 1959.

4. Health of Natives.—The main diseases and conditions for which patients are admitted to hospital are malaria, pneumonia, tropical ulcers, bronchitis, tubercular infections and tuberculosis, confinements and skin infections. The Department of Public Health is engaged in combating these diseases with a staff of fully-trained medical officers, medical assistants and orderlies in native hospitals. Its staff also supervises hospitals on plantations. It has facilities for research in tropical medicine, and schemes for training natives as medical orderlies and nurses. There are 74 Administration hospitals, including five Hansenide colonies and two tuberculosis hospitals. The Missions have established an additional 69 hospitals, including two Hansenide colonies. There are 1,202 village aid posts (304 conducted by Missions) and 363 maternity and child welfare centres (63 provided by Missions). The Missions staff their own medical establishments but receive financial assistance from the Administration, which also provides much of their medical stores and supplies.

5. Missions.—A number of Mission societies operate in the Territory. The Society of the Sacred Heart of Jesus works in the Bismarck Archipelago, the Society of the Holy Ghost, the Franciscan Order and the Society of the Divine Word in the five districts of mainland New Guinea, and the Marists in Buka and Bougainville. These are Roman Catholic Missions. Protestant Missions include the Methodist Overseas Mission in New Britain and New Ireland, the New Zealand Methodist Mission in Bougainville, the Lutheran Mission (supported and staffed by the Lutheran Churches in Australia and America) which works in Morobe, Madang, the Eastern and Western Highlands, and Manus, the New Guinea Anglican Mission in the Eastern Highlands, the Seventh-day Adventist Mission in Bougainville, Manus, New Ireland, New Britain and the Mainland of New Guinea, the East and West Indies Bible Mission and the Baptist Mission in the Central Highlands. The South Seas Evangelical Mission (Undenominational) and the Assemblies of God Mission are also working in the Sepik area. All these Missions include teaching with their missionary work. Other Missions operating in the Territory are the Apostolic Church Mission in the Western Highlands, Christian Missions in Many Lands in the Sepik area, Church of Christ Mission in Madang, Church of the Nazarene in the Western Highlands, Faith Mission in the Eastern Highlands, New Tribes Mission in Morobe and the Eastern Highlands, Swiss Evangelical Mission in the Eastern and Western Highlands, Sola Fide Mission in the Sepik area, and Salvation Army and World Missions, both in the Eastern Highlands.

§ 5. Land Tenure.

The principles governing the acquisition and ownership of land and types of tenure available in New Guinea are in general similar to those which obtain in Papua and although, under the Land Ordinance 1922–1951, grants of freehold estates may be made, as a matter of policy all grants are now restricted to leaseholds. In New Guinea, however, the amount of freehold land of earlier origin held by private non-indigenous owners amounts to more than half a million acres. Freehold titles to this land, which includes a good deal of plantation land, may be transferred by purchase subject only to the general provision that dealings in land require the approval of the Administrator.

The area of the Territory of New Guinea is estimated at 59,520,000 acres, of which at 30th June, 1959, two per cent. was alienated. The following was the distribution of alienated land according to tenure at 30th June, 1959:—held by private non-indigenous inhabitants—freehold, 518,485 acres, leasehold, 320,235 acres; held by Administration, 539,190 acres; native reserves, 26,936 acres; total, 1,404,846 acres.

Leases in force at 30th June, 1959, were as follows:—Agricultural, 779—216,568 acres; dairying, 6—1,300 acres; pastoral, 16—85,637 acres; residential and business, 2,231—1,595 acres; special, 260—8,207 acres; mission 673—2,413 acres; long period leases from German regime, 104—4,515 acres; total 4,069—320,235 acres.

Under German law there was a system of registration of titles in a "Ground Book", but registration did not confer an indefeasible title. The German system has been replaced by one modelled on the Torrens plan, embodied in the Lands Registration Ordinance 1924–55. The land registers were lost during the 1939–45 War but provision for restoration of the lost titles is made in the New Guinea Land Titles Restoration Ordinance 1951–55. A start has been made on the recording of native land interests under the Native Land Registration Ordinance 1952.

§ 6. Production.

1. General.—The products of the Territory are obtained principally from its agricultural, mining, fishing and forestry industries. A copra crushing mill at Toboi, near Rabaul, increased production during 1958–59 to 21,541 tons, nearly 50 per cent. above that of the previous year. At Bulolo, a company (Commonwealth-New Guinea Timbers Ltd.), in which the Commonwealth Government has a controlling interest, is producing high quality water-proof plywood and veneers in a factory whose capacity is over 40 million square feet, on a $\frac{1}{8}$ inch basis, per annum. Native subsistence agriculture, fishing, and hunting produce most of the food requirements of the native population. The main native agricultural products are taro, yams, sweet potatoes, coconuts, bananas and papaw. Non-indigenous enterprise produces most of the commodities exported. Natives, however, produce copra for export and

in recent years, have taken up the production of introduced crops such as peanuts, rice, cucurbits and maize for their own consumption and cocoa and coffee for export. The principal agricultural products of New Guinea for the export trade are copra and cocoa. While most of the timber milled during 1958–59 was absorbed by the local market, exports increased over 1956–57 figures (*see para. 2 below*). The main products of fisheries exported from New Guinea are trochus and green snail shell, including that collected by natives. Gold is the principal mineral mined. Natives are taking an increasing interest in mining for alluvial gold on their own account and production from this source is continually rising, in contrast to falling European production.

For information on the agricultural and pastoral industries, which for the sake of convenience covers the Territory of Papua and New Guinea as a whole, *see pages 132–5*. The following paragraphs relate to the timber, fishing and mining industries in the Territory of New Guinea alone.

2. Timber.—Various species of timber are found in the Territory, but the only accessible pure stand is the valuable pine forests of the Bulolo Valley. This timber is used mainly for the production of plywood and veneer by Commonwealth-New Guinea Timbers Ltd., which is consuming a little over 10 million super. feet of logs per annum to produce the equivalent of approximately 30 million square feet of plywood on a $\frac{3}{8}$ inch basis (28 million in 1958–59). Exports of plywood in 1958–59 were 25½ million square feet, valued at £1,027,000 while veneer exports of 297,724 square feet on a $\frac{1}{8}$ inch basis were valued at £3,300. During the year, one million super. feet of logs (some suitable for plywood manufacture) to the value of £46,000 and nearly four million super. feet of sawn timber valued at £236,000, were also exported. The Territory forests also provided flitches, battery veneer and egg-case parts for export.

The Administration sawmill at Lae provides a considerable amount of sawn timber for local consumption, and serves as a training centre for operatives in the sawmilling industry. The Administration also operates a training centre for forestry workers, nurseries and a herbarium, and is establishing a research institute in Port Moresby.

The Forestry Ordinance 1936–1951 provides for the issue of permits and licences to cut timber. Present policy calls for the orderly development of the timber industry on sound forestry principles to ensure no waste of the resources and no over-exploitation; the grant of emergency timber permits for limited quantities to assist in providing timber for Territory requirements; the disposal by public tender of timber areas designated by forest officials of the Territory; and the development of the pine stand in the Bulolo Valley by Commonwealth-New Guinea Timbers Ltd. Timber growing on native lands cannot be acquired by private purchasers direct from the natives but must be obtained through the Administration. Royalty is payable on all forest produce taken under permit or licence. Re-forestation of areas dedicated for forestry in perpetuity is carried out by the Administration.

At 30th June, 1959, 21 permits and six licences were current, the total area of forest involved being 169,171 acres and 25,689 acres respectively. Twenty-nine sawmills and also some benches on private property were operating.

3. Fisheries.—The wealth of the waters of the Territory has been little exploited, but as the result of surveys and the development of the Administration fisheries service, action is being taken to promote increased use of the resources. Fish are caught at many places along the coast to supply the small local demand of the natives and of Europeans. Trochus shell to the value of £59,128 and green snail shell to the value of £8,431 were exported during 1958–59.

4. Mining.—The production of gold and associated silver is the most important mining activity in New Guinea. Gold has been discovered on the Waria, the Ramu, the Francisco, and the Markham Rivers, and in tributaries of the Sepik River. Rich gold deposits were first discovered in the Morobe District in 1926. The field is situated about 80 miles (40 by air) inland from Lae, the nearest coastal port. Communication is established with the coast by regular air service and by road transport. Silver is found, usually associated with the gold in these deposits. Osmiridium is reported to have been found on the upper tributaries of the Ramu, and platinum on the Kabenau River. Copper has been discovered in the form of chalcopyrite and malachite in the Baining District. Iron ore occurs as magnetite and

haematite in the Baining District. Sulphur occurs in several localities in the volcanic regions of the Territory. Brown coal has been found on the mainland in the vicinity of Astrolabe Bay, and in the southern portion of New Ireland. The commercial production of minerals other than gold and silver has not been undertaken.

The granting of rights, leases and claims for mining purposes is provided for in the Mining Ordinance 1928-1957 and regulations thereunder.

The production of gold in New Guinea during the last three pre-war years averaged about 228,000 fine oz. a year, valued at £2,000,000. In 1940-41, it amounted to 263,113 fine oz., valued at £2,808,835. Although the market price of gold has been fixed at a much higher level than in 1938-39, mining costs have risen to a greater extent and consequently production since the war has been on a much smaller scale, averaging 91,000 fine oz., at a value of £1,200,000 a year over the five years ended 1951-52. Production in 1955-56 amounted to 71,519 fine oz., valued at £1,117,483 and in 1956-57 to 78,856 fine oz., valued at £1,232,128. The slight increase in production during 1956-57 has not been maintained, however, the 1959-60 production being valued at only £705,181.

The Petroleum Ordinance 1936 has been superseded by the Petroleum (Prospecting and Mining) Ordinance 1951-1958, which has facilitated the carrying out of geological surveys and prospecting activities generally. There are, however, no prospecting permits for oil current at the present time.

§ 7. Trade, Transport and Communication.

1. **Customs Tariff.**—The present customs tariff provides high revenue rates on ale, spirits, tobacco and cigarettes, timepieces, cigarette papers, fancy goods and jewellery but allows entry of most necessities affecting living and building costs duty free or at a low rate of duty. There is a by-law provision under the Customs Tariff to enable duty-free admission to be granted for plant, machinery, and chemicals to be used mainly for industrial and developmental purposes and for goods imported by passengers. No preferential rates are specified in the schedule.

Provision is made in the Australian Customs Tariff (Papua and New Guinea Preference) 1936 for the free entry into Australia of certain goods produced in and imported direct from the Territory of New Guinea (*see* Chapter XIII.—Trade), and a proclamation of 25th September, 1935, exempted from primage duty goods produced or manufactured in the Territory.

2. **Imports and Exports.**—(i) *Total Values.* The table below summarizes the values of imports and exports for the years 1954-55 to 1958-59.

TERRITORY OF NEW GUINEA: IMPORTS AND EXPORTS.

(£.)

Particulars.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
<i>Imports</i>	9,577,088	10,280,029	10,918,981	11,452,012	11,818,592
<i>Exports</i> —					
Domestic Exports ..	9,589,317	9,220,446	9,548,624	8,815,592	11,903,187
Re-Exports	471,324	665,177	763,868	812,456	788,690
<i>Total Exports</i> ..	10,060,641	9,885,623	10,312,492	9,628,048	12,691,877

(ii) *Imports.* The following table summarizes the countries of origin of imports. During the past ten years by far the greatest proportion of imports has been supplied by Australia.

TERRITORY OF NEW GUINEA: COUNTRY OF ORIGIN OF IMPORTS.
(£.)

Country of Origin.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Australia	5,888,143	6,668,947	7,327,966	7,051,240	7,721,687
Germany (Federal Republic) ..	(a)	211,753	181,370	245,260	296,007
Hong Kong	522,455	474,583	421,191	482,085	521,455
India	121,465	149,805	116,006	145,865	170,687
Indonesia	(a)	299,616	462,091	632,274	500,814
Japan	(a)	468,185	478,364	790,436	703,058
United Kingdom	701,524	743,718	701,746	766,091	775,654
United States of America	972,947	797,869	785,611	790,151	651,024
Other Countries	1,370,554	465,553	444,636	548,610	478,206
Total Imports ..	9,577,088	10,280,029	10,918,981	11,452,012	11,818,592

(a) Not available; included under "Other Countries".

(iii) *Exports.* (a) *Countries of Destination.* The countries of destination of exports from New Guinea are shown below.

TERRITORY OF NEW GUINEA: COUNTRY OF DESTINATION OF EXPORTS.
(£.)

Country of Destination.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Australia	4,338,701	4,575,510	4,923,756	4,956,187	5,806,798
United Kingdom	5,079,801	4,727,759	4,556,808	3,686,900	4,435,284
Other Countries	642,139	582,354	831,928	984,961	2,449,795
Total Exports ..	10,060,641	9,885,623	10,312,492	9,628,048	12,691,877
<i>Domestic Exports ..</i>	<i>9,589,317</i>	<i>9,220,446</i>	<i>9,548,624</i>	<i>8,815,592</i>	<i>11,903,187</i>
<i>Re-exports</i>	<i>471,324</i>	<i>665,177</i>	<i>763,868</i>	<i>812,456</i>	<i>788,690</i>

(b) *Principal Commodities.* The following table provides details of the value of the principal domestic exports for the same years.

TERRITORY OF NEW GUINEA: PRINCIPAL DOMESTIC EXPORTS.
(£.)

Item.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Copra	5,144,352	4,795,987	4,706,142	3,673,687	4,451,148
Other Coconut Products	1,297,185	1,458,273	1,441,187	1,649,503	2,933,110
Cocoa Beans	512,204	352,105	454,463	814,633	1,468,572
Coffee Beans	72,575	91,698	179,510	222,794	448,869
Peanuts	27,628	23,336	48,701	138,146	286,684
Gold	1,339,473	1,064,279	1,225,447	851,506	736,354
Shell (Marine)	218,956	303,215	220,361	68,460	68,174
Timber	212,199	285,505	256,286	235,247	316,292
Plywood	644,929	749,179	919,478	1,023,365	1,027,748
Veneer	36,196	9,440	1,036	6,649	3,299
Other	83,620	87,429	96,013	131,602	162,937
Total Domestic Exports	9,589,317	9,220,446	9,548,624	8,815,592	11,903,187

3. **Shipping.**—Regular passenger and freight services operate between Australia, Papua and the Territory of New Guinea. Vessels trading between Australia and the East and also some on voyages to the United Kingdom and to North America call at Territory ports. Coastal and inter-island shipping services are maintained by vessels operating from the principal ports of the Territory. Shipping within the Territory is regulated by the Shipping Ordinances 1951–1960, and the Coastal Shipping, Ports and Harbours Regulations.

Main ports of call for oversea vessels are Lae, Madang and Wewak (mainland), Rabaul (New Britain), Kavieng (New Ireland), Lorengau (Manus), and Kieta (Bougainville). Ports proclaimed under the Coastal Shipping, Ports and Harbours Regulations for the service of local vessels are, in addition to the main ports above-mentioned, Salamaua, Aitape and Vanimo (mainland), Gasmata and Talasea (New Britain), Namatanai (New Ireland), and Buka Passage (Bougainville).

There are no inland waterways and the natural river system is not generally suitable for vessels except those of small tonnage.

In 1958–59, 180 British vessels and 76 vessels of other nationalities called at Territory ports and discharged 141,180 tons of cargo and loaded 139,420 tons. Corresponding figures for 1957–58 were 118, 67, 130,363 and 148,485 respectively.

4. **Other Forms of Transport and Communication.**—There are no railways in New Guinea, but a road construction programme is being undertaken progressively to assist the economic development of the Territory. Road transport services operate in the main towns and on the trunk roads linking Rabaul and Kokopo; Lae, Bulolo and Wau; Kavieng and Namatanai; and on the network in the Eastern and Western Highland Districts centred on Goroka and Mt. Hagen. The total mileage of roads in the Territory of New Guinea at 30th June, 1959, was 4,462, of which 1,403 were suitable for heavy and medium traffic.

Air services link the Territory with Papua, Australia, Netherlands New Guinea and the British Solomon Islands. There are 138 aerodromes and seaplane alighting areas in New Guinea, and of these 25 are controlled by the Department of Civil Aviation, 48 by the Administration, 64 by private interests and one by the Royal Australian Navy.

Telephone services operate in the main centres. Radio telephone trunk circuits link Port Moresby with Lae, Rabaul and Madang and service is available from subscribers, telephones in Port Moresby, Lae and Rabaul, and from the Post Office at Madang. Six zone or group centres for radio telephone communication with outstations have been established at Lae, Madang, Rabaul, Kavieng, Wewak and Lorengau. From these centres, radio telegraph services are also available to 111 outstations.

§ 8. Finance.

The principal sources of revenue for the Territory of New Guinea are the grant by the Commonwealth Government and customs duties. The major classes of revenue and expenditure during the years 1955–56 to 1959–60 were as shown in the following table:—

TRUST TERRITORY OF NEW GUINEA: REVENUE AND EXPENDITURE.

(£.)

Item.	1955–56.	1956–57.	1957–58.	1958–59.	1959–60.
REVENUE.					
Commonwealth Grant ..	4,901,737	5,498,179	6,188,821	6,706,373	7,859,921
Customs Duties(a) ..	1,601,820	1,702,884	1,894,125	2,415,514	1,699,039
Income Tax ..	..	..	..	..	930,405
All Other ..	810,041	949,633	1,031,901	1,139,859	1,195,667
Total Revenue ..	7,313,598	8,150,696	9,114,847	10,261,746	11,685,032

TRUST TERRITORY OF NEW GUINEA: REVENUE AND EXPENDITURE.

—continued.

(£.)

Item.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
EXPENDITURE.					
Public Health	1,503,501	1,504,191	1,225,650	1,256,924	1,449,560
Native Affairs	714,233	732,705	641,078	713,902	801,832
Education	439,039	540,181	637,238	775,429	873,159
Civil Affairs	34,281	62,110	432,243	460,999	507,754
Police	400,172	407,457	237,893	264,751	404,793
Agriculture Stock and Fisheries	383,320	416,094	389,552	449,334	552,375
Posts and Telegraphs ..	325,801	331,257	361,444	395,679	446,519
Customs and Marine ..	124,073	127,401	125,579	141,369	144,569
Forestry	216,268	235,073	239,908	257,112	282,786
Public Works Department ..	65,117	252,091	362,116	248,561	253,472
Maintenance	713,346	776,962	885,944	955,891	1,204,329
Capital Works and Assets ..	1,558,328	1,843,763	2,063,908	2,566,358	2,825,600
Other	736,119	921,411	1,512,294	1,775,437	1,938,284
Total Expenditure ..	7,313,598	8,150,696	9,114,847	10,261,746	11,685,032

(a) Includes Harbour Dues and Wharfrage.

For information on the finances of the combined Territory administration *see* Papua and New Guinea, § 2, page 132.

TRUST TERRITORY OF NAURU.

1. **General.**—Nauru is an oval-shaped atoll about 12 miles in circumference, having an area of about 5,263 acres, of which approximately two-thirds is phosphate-bearing. It is situated in latitude 0° 32' S. and longitude 166° 55' E. Portion of the island between the sandy beach and the coral cliffs is fertile, and it is there that most of the Nauruans reside. With the exception of a small fringe around an inland lagoon, the plateau which contains the phosphate deposits possesses few food plants and is uninhabited, but portion of the area has been planted with fruit trees. The system of land tenure is governed by an old custom, and, with the exception of small allotments held by the Government, the British Phosphate Commissioners, and the Missions, the whole of the island is owned by individual natives. The temperature range is from 76° F. at night to 94° F. during the day and the average humidity about 80 per cent. Normally the rainfall is comparatively low for islands of the Pacific, the annual average for twenty years from 1920 to 1940 being 80.5 inches. However, falls as high as 181.76 inches during 1940 and as low as 12.29 inches during 1950 have been recorded.

2. **History.**—The island, discovered by Captain Fearn in 1798, was annexed by Germany in 1888, and prior to 1914 was part of the protectorate of German New Guinea.

In November, 1914, Nauru was occupied by a detachment from the Australian Naval and Military Expedition at Rabaul, and it was included in the cession of colonies made by Germany in 1919 to the Allied and Associated Powers, whose representatives agreed that a mandate for its administration should be conferred upon His Britannic Majesty. The mandate was confirmed by the Council of the League of Nations on 17th December, 1920. On 2nd July, 1919, the British, Australian and New Zealand Governments agreed that the administration (which, since 1915, had been in charge of an official appointed by the British Colonial Office) should be vested in an Administrator, who took up duty in June, 1921. The agreement between the three Governments was approved by the Commonwealth Parliament in the Nauru Island Agreement Act 1919 and is shown in the Schedule to that Act. A supplementary agreement concerning Nauru was drafted in May, 1923, and ratified by the Commonwealth Parliament by the Nauru Island Agreement Act 1932.

On 25th August, 1942, nine months after the outbreak of the war in the Pacific, the island was occupied by Japanese forces and communications with Nauru ceased. It was re-occupied by a joint Australian Naval and Military Force on 14th September, 1945, and civil administration was re-established on 1st November, 1945.

3. **Trusteeship Agreement.**—On 1st November, 1947, the General Assembly of the United Nations approved a Trusteeship Agreement for the Territory of Nauru submitted by the Governments of Australia, New Zealand, and the United Kingdom in substitution for the terms of the mandate under which the Territory had been administered. This Agreement designates the Governments of Australia, New Zealand, and the United Kingdom as the Joint Administering Authority, with the Government of Australia continuing, on behalf of the Administering Authority, to exercise full powers of legislation, administration and jurisdiction in and over the Territory. The terms of the Agreement were given in Official Year Book No. 39, pages 370–1.

4. **Administration.**—The administration of the island is vested in an Administrator, who is obliged to conform to instructions issued by the Government which appointed him. Until the Government of Australia ceases to exercise full powers of legislation, administration, and jurisdiction in and over the Territory on behalf of the Administering Authority in pursuance of Article 4 of the Trusteeship Agreement, all ordinances made by the Administrator are subject to confirmation or disallowance by the Governor-General of Australia acting on the advice of the Federal Executive Council. All administration expenses are met from local revenue and phosphate royalties. Native industries such as canoe-building, fishing, mat-making, etc., are encouraged by the provision of prizes at annual competitions. An agency of the Commonwealth Savings Bank has been established. There is a co-operative store managed to a large extent by Nauruans. The store books, however, are audited by Government officers. Natives are not allowed to carry or be in possession of firearms, and the use by them of intoxicating liquors and deleterious drugs is prohibited.

5. **Population.**—The Nauruan component of the population numbered about 1,100 in 1921, but had grown to more than 1,800 before the Japanese invasion in August, 1942. In 1946, it numbered less than 1,400 but by 30th June, 1959, had risen to 2,321. Chinese have, for many years, formed a considerable part of the population of Nauru; their numbers increased, with some reversals of trend, from about 600 in 1921 to more than 1,500 before the 1939–45 War. After the War, they increased from about 800 in 1946 to 1,491 in 1950, but at 30th June, 1959, numbered only 712. The number of other Pacific islanders in the early 1920's was almost 300 but they subsequently declined to less than 40. In recent years, the numbers have increased, and at 30th June, 1959, there were 974. The European population after 1921 fluctuated, but with a generally upward trend, between one and two hundred, and in 1940 numbered 192. In 1948, it had increased to 247 and in 1957 to 373. The total non-indigenous population of Nauru at 30th June, 1959, was 2,068, while the total population was 4,389.

6. **Health.**—Cases of the usual diseases known in the Pacific occur but the health of all sections of the population is generally satisfactory. An area has been set apart for the segregation of sufferers from Hansen's disease, and the latest methods of treatment are applied. The total number of persons receiving treatment at 30th June, 1959, was 46 of whom, however, only six were in segregation at the Hansenide colony. Three hospitals are maintained on the island, one by the Administration for Nauruans, and two by the British Phosphate Commissioners, one for European and one for non-European employees. The Administration also conducts eleven maternity and child health centres. A regular anti-mosquito campaign is conducted. Steps have been taken by the authorities to improve the water supply and to provide efficient sanitation generally. Every Nauruan is required to undergo medical examination at intervals of three months.

7. **Education.**—The Administration assumed full responsibility for education on 1st October, 1923. Prior to that date, the education of native children was undertaken by the Missions, which were subsidized by the Administration. There are three primary schools, one each for European, Nauruan and Gilbertese students, one Nauruan secondary school and one mission school providing primary and secondary classes. Primary education only is provided for European children, allowances being provided to those who proceed to secondary schools in Australia. At 30th June, 1959, 630 Nauruans, 89 other Pacific Islanders, 22 Chinese and 58 Europeans were enrolled in the primary schools, and 85 at the two secondary schools.

The curriculum is based generally on that used in Australian schools, and the teaching is generally in English. Education is compulsory for Nauruan children from six to sixteen years of age. At 30th June, 1959, 35 Nauruans were attending secondary schools in Australia or undertaking post-secondary training, 26 as scholarship holders and the balance sponsored by their families. In addition to these, there were four students at the Central Medical School, Suva, and one private student in New Zealand.

8. **Judiciary.**—The District Court is a court of record and consists of such magistrates as the Administrator appoints. Additionally, there is the Central Court which, as a superior court of record, consists of such judges or magistrates as are appointed and which, *inter alia*, may hear and determine appeals from judgments of the District Court. A Court of Appeal comprising a judge appointed by the Administrator has also been constituted with jurisdiction to hear and determine appeals from judgments of the Central Court.

9. **Religion.**—The London Missionary Society (Protestant) and the Sacred Heart of Jesus Mission (Roman Catholic) operate in Nauru.

10. **Phosphate Deposits.**—(i) *General.* From 1906 to 1919, the deposits were worked by the Pacific Phosphate Company, which also worked the deposits on Ocean Island (about 165 miles east of Nauru and part of the Gilbert and Ellice Islands Colony administered by the Colonial Office). The quantity remaining on Nauru has been estimated at about 70 million tons, and the exports average 85 per cent. to 88 per cent. of tricalcium phosphate.

The interests of the Pacific Phosphate Company in the two islands (though not in other islands in the Pacific in which it had workings) were bought by the British, Australian and New Zealand Governments on 25th June, 1920, for £3,500,000, the purchase money being contributed in the proportions of 42, 42 and 16 per cent. respectively. The Agreement of 2nd July, 1919, provides for the working of the deposits by three British Phosphate Commissioners, one appointed by each Government, and the three countries are entitled to receive the output in the same proportions of 42, 42 and 16 per cent.

(ii) *Royalty on Phosphate.* Under an agreement between the British Phosphate Commissioners and the Nauruan landowners, a royalty of 1s. 6d. for each ton of phosphate exported has been payable since 1st July, 1953. As from 1st July, 1957, this rate was increased to 2s. 7d. a ton as follows:—

- (a) 7d. to the Nauru Royalty Trust Fund to be used for the benefit of Nauruans;
- (b) 1s. to the landowner, being an immediate payment of 9d. a ton, and 3d. a ton to be invested on his account;
- (c) 1s. to the Nauruan Community Long Term Investment Fund.

From 1st July, 1957, the lump sums payable to landowners from whom phosphate-bearing lands are leased were also increased to £60 an acre.

(iii) *Nauru and Ocean Island Phosphate Industry.* Exports of phosphate from Nauru and Ocean Island in 1939–40 amounted to 1,243,428 tons, of which Australia received 54 per cent. and New Zealand 32 per cent. Following the interruption to production by the war in the Pacific, this figure was not exceeded until 1949–50 when 1,285,998 tons were exported (76 per cent. to Australia, 24 per cent. to New Zealand). Figures for 1958–59 were:—1,535,031 tons exported (including Ocean Island 333,893 tons), 60 per cent. to Australia, 32 per cent. to New Zealand and eight per cent. to the United Kingdom.

Receipts from the sale of phosphate in 1939–40 amounted to £1,041,418, and the f.o.b. cost, including interest on capital, sinking fund, etc., amounted to £1,037,208. In 1946–47, sales and costs each amounted to about £500,000, but they have since increased to more than £3,000,000. In 1958–59, receipts from sales, etc., amounted to £3,429,055, and costs, etc., to £3,423,950.

During the period of the Japanese occupation from August, 1942, to September, 1945, while waiting to resume activities at Nauru and Ocean Island, the Commissioners were engaged in meeting the phosphate requirements of Australia and New Zealand from other available sources.

The amount due by the British Phosphate Commissioners to the partner Governments for purchase-money and other capital sums was £3,666,457 on 30th June, 1921, and at 30th June, 1942, this had been reduced to £3,024,373. The partner Governments agreed to a suspension of interest and sinking fund payments from 1st January, 1942, while operations at Nauru and Ocean Island were curtailed. Modified payments were resumed in 1946–47, pending a review of the position.

The review was carried out in 1950, and as a result the revised capital indebtedness of the Commissioners to the partner Governments at 30th June, 1950, was determined at £3,881,711. Interest and sinking fund payments were resumed with effect from 1st July, 1950, on the basis of repayment of the revised capital indebtedness in 35 years. At 30th June, 1959, this indebtedness had been reduced to £3,323,964.

(iv) *Employees.* Apart from a limited number of Europeans, the employees are Chinese and Pacific Islanders engaged under one year contracts. Increasing numbers of Nauruans are being employed, mainly in trade capacities.

(v) *Christmas Island Phosphates.* The Australian Government is also interested in phosphate deposits on Christmas Island (*see* p. 158).

11. *Transport.*—There is no regular air service to Nauru, but when the need arises charter flights are made to the island.

There is relatively frequent communication by sea with the island. Most of the vessels are run or chartered by the British Phosphate Commissioners for the carriage of phosphate. Many of them also provide for the carriage of passengers and other cargo as required. The total calls by vessels were 118 in 1958–59 and 134 in 1959–60.

12. *Trade.*—The Customs Tariff of Nauru provides for the free admission of all goods other than cigars, cigarettes, tobacco, spirits, wines, beer, cider and perry. Articles imported by the Administration for its own use and spirits for scientific purposes are exempt. The tariff rates apply to all countries alike. In 1958–59, imports were valued at £1,013,674 and exports, 1,201,138 tons of phosphate, at £2,492,361. Of the total imports in 1958–59, Australia supplied 59 per cent. valued at £599,081; the balance came mainly from the United Kingdom, Hong Kong, New Zealand and the United States.

In 1958–59, 704,632 tons of phosphate were exported to Australia, 291,956 tons to New Zealand and 204,550 tons to the United Kingdom.

13. *Revenue and Expenditure.*—The revenue of the Administration has risen from £33,084 in 1939 to £350,344 in 1958–59, and expenditure from £29,391 to £357,759.

Of the revenue for the year ended 30th June, 1959, payments by the British Phosphate Commissioners amounted to £330,597, post office and radio receipts, £6,564, and import duties, £3,651. Main items of expenditure were administration £90,954, miscellaneous services (health, education, etc.), £143,048 and capital works and services, £44,245.

Corresponding figures of revenue and expenditure for the year ending 30th June, 1960, were, revenue, £438,245 (payments by the Phosphate Commissioners £412,052; post office, etc. £9,370; and import duties £3,586) and expenditure £408,906 (administration £101,468, miscellaneous services £145,704, and capital works and services £89,528).

TERRITORY OF HEARD ISLAND AND McDONALD ISLANDS.

These islands, about 2,500 miles south-west of Fremantle, were transferred from the United Kingdom to Australia as from 26th December, 1947. The laws of the Australian Capital Territory were declared to be in force in the Territory of Heard Island and McDonald Islands by the Heard and McDonald Islands Act 1953.

In December, 1947, an Australian scientific station was established on Heard Island and meteorological investigations were conducted until the station was closed in March, 1955, following the establishment of Mawson station on the Antarctic mainland. Heard Island is about 27 miles long and 13 miles wide. The McDonald Islands are 26 miles to the west of Heard Island. They are small, rocky and precipitous.

AUSTRALIAN ANTARCTIC TERRITORY.

An Imperial Order in Council of 7th February, 1933, placed under Australian authority all the islands and territories other than Adelie Land situated south of 60° S. lat. and lying between 160° E. long. and 45° E. long. The Order came into force with a Proclamation issued by the Governor-General on 24th August, 1936, after the passage of the Australian Antarctic Territory Acceptance Act 1933. The boundaries of Adelie Land were definitively fixed by a French Decree of 1st April, 1938, as the islands and territories south of 60° S. lat. lying between 136° E. long. and 142° E. long. The Australian Antarctic Territory Act 1954 declared that the laws in force in the Australian Capital Territory are, so far as they are applicable and are not inconsistent with any ordinance made under the Act, in force in the Australian Antarctic Territory.

On 13th February, 1954, the Australian National Antarctic Research Expeditions (A.N.A.R.E.) established a base on MacRobertson Land at latitude 67° 36' S. and longitude 62° 53' E. The base was named Mawson in honour of the late Sir Douglas Mawson and was the first permanent Australian station to be set up on the Antarctic continent. Meteorological and other scientific research is conducted at Mawson, which is the centre for coastal and inland survey expeditions.

A second Australian scientific research station was established on the coast of Princess Elizabeth Land on 13th January, 1957, at latitude $68^{\circ} 34' 36''$ S. and longitude $77^{\circ} 58' 36''$ E. The station was named Davis in honour of Captain John King Davis of Melbourne, who commanded a number of famous Antarctic ships. In February, 1959, the Australian Government accepted from the United States Government custody of Wilkes Station, which was established by the United States on 16th January, 1957, on Vincennes Bay, at latitude $66^{\circ} 15' 15''$ S. and longitude $110^{\circ} 33' 15''$ E. The station was named in honour of Lieut. Charles Wilkes, who commanded the 1838–40 United States expedition to the area. Scientists from both countries participate in the programme of research at Wilkes. A.N.A.R.E. have also operated a station, since the 1947–48 Antarctic season, at Macquarie Island, approximately 850 miles south-east of Hobart. Macquarie Island is a dependency of the State of Tasmania.

On 1st December, 1959, Australia signed the Antarctic Treaty with Argentina, Belgium, Chile, France, Japan, New Zealand, Norway, South Africa, U.S.S.R., United Kingdom and the United States of America. The Treaty reserves the Antarctic area south of 60° S. latitude for peaceful purposes, provides for international co-operation in scientific investigation and research, and freezes, for the duration of the Treaty, the *status quo* with regard to territorial sovereignty, rights and claims. It will enter into force when ratified by all twelve signatories.

TERRITORY OF COCOS (KEELING) ISLANDS.

1. **General.**—The Cocos (Keeling) Islands, two separate atolls comprising some 27 small coral islands with a total area of about five square miles, are situated in the Indian Ocean in latitude $12^{\circ} 5' 15''$ S. and longitude $96^{\circ} 53' 15''$ E. They lie some 1,720 miles north-west of Perth and 2,290 miles almost due west of Darwin, while Johannesburg is some 3,800 miles further distant to the south-west, and Colombo is 1,400 miles to the north-west of the group.

The main islands of the Territory are West Island, the largest, about 6 miles from north to south, on which is the aerodrome and most of the European community; Home Island, the head-quarters of the Clunies-Ross Estate; Direction Island, on which is situated the Cable and Wireless Station and the Department of Civil Aviation's Marine Base; and Horsburgh Island. North Keeling Island, which forms part of the Territory, lies about 15 miles to the north of the group and has no inhabitants.

Main settlements are on West Island, Home Island and Direction Island. The group of atolls is low-lying, flat and thickly covered by coconut palms, and surrounds a lagoon which has a harbour in the northern part but which is extremely difficult for navigation.

The climate is equable and pleasant, usually being under the influence of the south-east trade winds for about three-quarters of the year. However, the winds vary at times and meteorological reports from the Territory are particularly valuable to those engaged in forecasting for the eastern Indian Ocean. The temperature varies between 70° and 89° F., and its average rainfall is 80 inches. There are occasional violent storms. The worst cyclone in their recorded history struck the islands in 1909, when about 400,000 coconut palms were uprooted or decapitated and the accompanying tidal wave left only five buildings standing.

2. **History.**—The islands were discovered in 1609 by Captain William Keeling of the East India Company. They were uninhabited and remained so until 1826 when the first settlement was established on the main atoll by an Englishman, Alexander Hare, who quitted the islands in about 1831. In the meantime, a second settlement was formed on the main atoll by John Clunies-Ross, a Scottish seaman and adventurer, who landed with several boat-loads of Malay seamen. In 1857, the islands were annexed to the Crown and formally declared part of the British Dominions, and in 1878 responsibility for their supervision was transferred from the Colonial Office to the Government of Ceylon, and subsequently, in 1882, to the Government of the Straits Settlements. By indenture in 1886, Queen Victoria granted the land comprised in the islands to John Clunies-Ross in perpetuity, and until 1946, the patriarchal rule of the head of the Clunies-Ross family was recognized. The head of the family had semi-official status as resident magistrate and representative of the Government. However, in 1946, when the islands became a dependency of the Colony of Singapore, a Resident Administrator, responsible to the Governor of Singapore, was appointed.

Other items of significance in the islands' history are:—1901—a small cable relay station was established at Direction Island; 1903—the islands were incorporated in the Settlement of Singapore; 1914—the German cruiser *Emden* raided Direction Island but was destroyed by H.M.A.S. *Sydney*; 1944—the Islands were under military administration with allied troops stationed there (a military Administrator was appointed during the minority of the Clunies-Ross heir who came of age in 1949); 1945—a R.A.F. air-strip was constructed on West Island; 1946—civil administration was re-established.

3. **Transfer to the Commonwealth of Australia.**—On 23rd November, 1955, the Cocos Islands ceased to form part of the Colony of Singapore and were placed under the authority of the Commonwealth of Australia. The transfer was effected by an Order in Council made by Her Majesty Queen Elizabeth the Second under the Imperial Act entitled the Cocos Islands Act 1955 and by the Cocos (Keeling) Islands Act 1955 of the Commonwealth whereby the islands were declared to be accepted by the Commonwealth as a Territory under the authority of the Commonwealth to be known as the Territory of Cocos (Keeling) Islands.

4. **Administration.**—Responsibility for the administration of the Territory rests with the Minister for Territories. The first Official Representative was appointed on 23rd November, 1955, to take charge of the local administration of the Territory. Under the Official Representation Ordinance 1955 of the Territory, the Official Representative is given such powers and functions in relation to the Territory as are delegated to him by the Minister under the Cocos (Keeling) Islands Act 1955–1958 or are otherwise conferred on him under that Act or by or under any other law of the Territory. The laws of the Colony of Singapore which were in force in the islands immediately before the date of the transfer were, with certain exceptions, continued in force by the Cocos (Keeling) Islands Act 1955–1958. They may be amended or repealed by Ordinances made under the provisions of that Act which empower the Governor-General to make Ordinances for the peace, order and good government of the Territory.

5. **Population.**—The population of the Territory in June, 1960, was estimated to be 607, comprising 181 Europeans and 426 Cocos Islanders. The Cocos Islanders reside on Home Island.

6. **Transport.**—There is an International airport at West Island under the control of the Department of Civil Aviation. This is a re-fuelling point for aircraft on the fortnightly air-services between Australia–South Africa and Australia–United Kingdom operated by South African Airways and Qantas Empire Airways Ltd., respectively. Although there is no regular shipping service, vessels from Australia and Singapore call at intervals.

TERRITORY OF CHRISTMAS ISLAND.

1. **General.**—Christmas Island is an isolated bank, situated in the Indian Ocean in latitude 10° 25' 19" S., longitude 105° 42' 57" E. It is approximately 220 miles south from Java Head, at the south entrance to Sunda Strait, 810 miles from Singapore and 1,625 miles from Fremantle. Christmas Island covers an area of about 55 square miles. It consists of a central plateau at about 600 to 800 feet, with several prominent rises up to 1,170 feet. The plateau descends to the sea in a series of steep slopes alternating with terraces, the last dropping in a cliff of 200 to 300 feet to a shore terrace, terminating in a sea cliff of 10 to 150 feet, which is continuous round the Island except in a few places, the chief of which is Flying Fish Cove where the shore is formed of coral shingles.

The principal settlement is at Flying Fish Cove which is also the only known anchorage. Vessels are moored close inshore opposite two piers with extension conveyors by which means direct loading to ships is carried out. The main installations of the phosphate industry are located here together with the European married quarters and the Chinese and Malay settlements. There is a secondary settlement with maintenance shops, etc., at South Point, and several other small settlements or camps across the central plateau and at the small pumping plants at springs and wells.

The climate is healthy and pleasant, the prevailing winds being from the south-east to east-south-east from May to December but from then to April (the wet season) they occasionally shift round from north to north-east. The average yearly rainfall is about 80 inches with a marked summer incidence. The porous nature of the ground prevents the formation of pools of water but there are several good springs, which maintain an adequate supply of fresh water for the small population and the installations. The mean average temperature is about 80° and does not vary greatly throughout the year.

2. **History and Administration.**—The first mention of Christmas Island appears in a map published in Holland in 1666, in which it is called Moni Island, although it is believed that Captain William Mynors of the East India Company had sighted the island on Christmas Day in 1643 and had named it accordingly.

In June 1888, it was annexed by Captain H. W. May of H.M.S. *Imperieuse* as part of the British Dominions and placed under the supervision of the Straits Settlements Government for administrative purposes. Following upon this, a small settlement was established at Flying Fish Cove by Mr. G. Clunies-Ross of Cocos (Keeling) Islands. In February, 1891, Sir John Murray and Mr. Clunies-Ross were granted a 99 year lease of the Island. This lease was transferred to the Christmas Island Phosphate Co. Ltd. in 1897, following the discovery of large deposits of phosphate of lime on the Island. In 1900, Christmas Island was incorporated for administrative purposes with the Settlement of Singapore and the laws of Singapore were generally applied to the Island.

The Straits Settlements (Repeal) Act 1946, passed by the United Kingdom, repealed the Act establishing the whole of the Straits Settlements as a single colony. Subsequently the Singapore Colony Order in Council, in 1946, decreed that the Island of Singapore and its dependencies, the Cocos or Keeling Islands and Christmas Island should be governed and administered as a separate Colony and called the Colony of Singapore. From 1st January, 1958, pending transfer to Australia, Christmas Island was administered by the United Kingdom as a separate Crown Colony. The Island was transferred to the Commonwealth of Australia on 1st October, 1958, by the Christmas Island Act 1958 and is now administered as a Territory under the authority of the Commonwealth. Responsibility for the administration and government of the Territory rests with the Minister for Territories and day to day affairs on the Island are administered by an Official Representative under delegation from the Minister. The laws which were in force in the Island at 30th September, 1958, were continued as the laws of the Territory after its transfer to Australia on 1st October.

3. **Industry and Commerce.** The only commercial activity carried out is the mining of phosphate. The British Phosphate Commissioners act as managing agents for the Christmas Island Phosphate Commission.

There are three principal phosphate deposits on the Island, the largest being that now being worked at South Point. This field is situated on the 600' to 800' level and is approximately 11 miles from the drying and shipping plant at Flying Fish Cove. The present output is about 400,000 tons annually. In addition, about 30,000 tons of phosphate dust are supplied annually to Malaya.

There is little prospect of any economic developments outside the phosphate industry.

4. **Population.**—The population of Christmas Island at 30th June, 1960, was approximately 2,919, consisting of 163 Europeans, 2,039 Chinese, 702 Malays and 15 Indians.

5. **Communications.**—Transport to and from the island is maintained by ships operated by the Phosphate Commission or under charter by the Commission. One vessel makes regular trips between Christmas Island and Singapore and other vessels, about six a month, carry phosphate to Fremantle and other Australian ports.

CHAPTER VI.

MANUFACTURING INDUSTRY.

§ 1. General.

1. Introduction.—A complete statistical account of the growth of the manufacturing industry in Australia cannot be given, as the necessary statistics were not collected by the several States on a definite and uniform basis prior to 1906. A standard classification of manufacturing industries was formulated at a conference of Australian statisticians in 1902 and adopted by all States in 1906 and figures on this basis were prepared for 1907 and subsequent years.

Prior to the federation of the Australian States in 1901, the manufacturing industry in Australia was engaged primarily in the production of goods for local use, mainly food commodities, furniture, bricks, clothing made from imported materials, printing, the repair rather than the manufacture of machinery, and the preliminary treatment of primary products, such as wool-scouring and sawmilling.

After federation, steady expansion of the manufacturing industry resulted from the removal of interstate trade barriers and the operation of a uniform protective tariff. This expansion was quickened as a result of the demands created by the 1914–18 War, the curtailment of imports, and the rapid growth of spending power within the community. New and more advanced development took place, iron and steel works and many related and subsidiary industries were established, extensive manufacture of machinery was begun, and a wide range of high-grade products—textiles, metal manufactures, electrical goods, etc.—was added to the list of commodities made in Australia.

This expansion was checked by the world-wide economic depression of 1929–33, but in 1933 returning general prosperity and the opportunities opened to local manufacturers by import restrictions, together with depreciation of Australian currency, gave renewed stimulus to manufacturing enterprise. As economic conditions improved, the tariff, revenue duties, and primage were reduced, but without materially prejudicing the progress of local manufactures.

When war broke out in September, 1939, Australia became a major source of supply for British countries east of Suez and in meeting their demands, as well as those arising locally because of interruption of overseas imports, existing manufacturing industries expanded, and new enterprises were developed rapidly for the production of all classes of munitions, aircraft, ships, many new kinds of machinery and metal manufactures, scientific equipment, textiles, chemicals, etc. The outbreak of war with Japan, the basing of Allied armed forces in Australia, and Australian responsibilities for supplies in the South-west Pacific Area, gave added impetus to these developments, and manufacturing in Australia outstripped all previous levels.

The cessation of war production and the transition of industry to a peace-time basis temporarily retarded progress, but from 1945–46 onward there was renewed expansion of the manufacturing industries to which an inflow of capital from overseas contributed.

2. Decentralization of Manufacturing Industries.—Following upon a report by the Secondary Industries Commission, the Commonwealth Government called a conference of Commonwealth and State Ministers in August, 1945, to formulate a national policy for the decentralization of secondary industries. It was agreed that the State Governments should seek to promote decentralization along the lines appropriate to each, providing necessary services, assistance and concessions to the full extent of State resources. The Commonwealth undertook to collaborate in all matters of Commonwealth industrial policy

affecting the development and location of industry, to investigate, in association with the States, the prospects of developing secondary industries in selected areas, to advise the States of developments desirable for defence purposes, and to provide financial assistance for projects of national importance where the cost would be great relative to the State's resources.

The Commonwealth has assisted decentralization by allocating to private industry munitions and other defence buildings in decentralized areas and accommodating migrants in provincial centres with prospects of development. Oversea firms contemplating establishment in Australia are encouraged to select locations in rural areas or the less industrialized States.

3. Commonwealth Division of Industrial Development.—The functions of the Division of Industrial Development include the encouragement of industrial development, the exercising of Commonwealth responsibilities for the decentralization of industry, the promotion of industrial efficiency (especially the study of technical, production and managerial problems and the dissemination and application of new knowledge and methods), the encouragement of the development of technological institutes and the publication of studies of the structure and operation of Australian manufacturing industries. The Division was attached to the Ministry of National Development when formed in March, 1950, to plan the development of national resources and to promote decentralization and regional development in conjunction with the States, but was transferred to the Department of Trade in January, 1956.

4. Customs and Excise Tariffs and Bounties on Manufactures.—Particulars of Australian customs and excise tariffs, and the constitution and functions of the Australian Tariff Board in relation to matters affecting the industrial development of Australia, are given in Chapter XIII.—Trade.

Bounties are paid by the Commonwealth Government to encourage local manufacture of certain products. The statutory provisions usually fix a term of operation of the bounty, provide for payment at a rate varying according to changes in the corresponding customs duty, specify the annual maximum amount of bounty payable and require the bounty to be withheld or reduced if a manufacturer's net profit in production of the commodity exceeds a certain rate or if rates of wages and conditions of employment in production of the commodity do not conform to prescribed standards.

5. Scientific Research and Standardization.—(i) *The Commonwealth Scientific and Industrial Research Organization.* The function of this Organization is to initiate and conduct research in connexion with industries in Australia, to train research workers, to establish industrial research studentships and fellowships, to make grants in aid of pure scientific research, to establish industrial research associations in various industries, to provide for testing and standardization of scientific equipment, to conduct an information service relating to scientific and industrial matters, and to act for Australia in liaison with other countries in matters of scientific research. For further information concerning the work of the Organization see Chapter XXX. of this Year Book.

(ii) *The Standards Association of Australia.* This Association, which is also discussed in more detail in Chapter XXX., acts as the national standardizing organization of Australia and issues standard specifications for materials and codes of practice. Specifications and codes are prepared and revised periodically in accordance with the needs of industry, and standards are evolved and accepted by general consent.

(iii) *The National Association of Testing Authorities.* The National Association of Testing Authorities organizes national testing facilities throughout Australia to serve private and governmental needs. Laboratories may register voluntarily in respect of tests within their competence and the Association ensures the maintenance of their standards of testing. It is expected that there will be general acceptance of certificates of tests issued in the name of the Association by the registered laboratories.

6. Definitions in Factory Statistics.—The statistics relating to factories have been compiled from tabulations made by the Deputy Commonwealth Statisticians in the several States from returns supplied to them annually by manufacturers in accordance with the Statistical Acts of the States and the Commonwealth. A return must be supplied in respect

of every factory, which is defined for this purpose as an establishment where four or more persons are employed or where power (other than manual) is used in any manufacturing process. This definition includes factories in educational and charitable institutions, reformatories, and other public institutions (except penitentiaries) but does not cover smallgoods makers, laundries, farriers, photography studios, florists and seedsmen, or most abattoirs. It should be noted that details relating to small establishments not classified for statistical purposes as factories are not included in the figures contained in this chapter.

If a manufacturing business is conducted in conjunction with any other activity, particulars relating to the manufacturing section only are included in the statistics. Where two or more industries are conducted in the same establishment, a separate return is obtained for each industry if practicable.

Manufacturers are requested to state in their returns particulars as to the number, age, wages, etc., of their employees, the value of premises and equipment, the horse-power of machinery, the value, and in most cases the quantities, of raw materials and fuel used, and quantities and values of principal materials and articles produced. The returns obtained from manufacturers are not intended to show a complete record of the income and expenditure of factories nor to show the profits or losses of factories collectively or individually.

The *average number of persons* employed is quoted on two different bases, the average during the period of operation and the average over the whole year. Of these, the former is simply the aggregate of the average number of persons employed in each factory during its period of operation (whether the whole or only part of the year). This average is used only in respect of details relating to classification according to the number of persons employed. The latter, which is used in all other instances, is calculated by reducing the average number working in the factories (irrespective of period of operation) to the equivalent number working for a full year.

Working proprietors are included in all employment figures other than those relating to monthly employment and age dissections, but salaries and wages paid in all cases exclude drawings by working proprietors.

The *value of factory output* is the value of the goods manufactured or their value after passing through the particular process of manufacture and includes the amount received for repair work, work done on commission and receipts for other factory work. The basis of valuation of the output is the selling value of the goods at the factory, exclusive of all delivery costs and charges and excise duties, but inclusive of bounty and subsidy payments to the manufacturer of the finished article.

The *value of production* is the value added to raw materials by the process of manufacture. It is calculated by deducting from the value of factory output the value (at the factory) of the materials used, containers and packing, power, fuel and light used, tools replaced, and materials used in repairs to plant (but not depreciation charges).

In the process of manufacture, many goods are treated in several industries, the output of one becoming the raw materials of another, so that such commodities are counted more than once in the aggregate value of output and of raw materials. Examples are raw sugar passing from the mills to the refinery, metals from the smelters which become raw materials in establishments concerned in the production of metal goods, and timber from the sawmills used in furniture factories and in joinery. On the other hand, the aggregate value of production is assessed without duplication, the value added by each industry being taken into account once only. For this reason, the value of production, and not the value of the output, is used as a measure of activity in the manufacturing industries as a whole.

In the special case of Government factories and workshops, the value of output is, in most cases, estimated by adding 10 per cent. to the value of materials and fuel used and other factory costs, including salaries and wages paid.

7. Classification of Factories.—In the compilation of statistical data relating to factories in Australia, a standard classification of manufacturing industries, formulated at a conference of Australian statisticians in 1902 and revised from time to time, was used until the year 1929–30. A new classification was introduced in 1930–31, and this in turn was revised and extended (principally in respect of the placement and composition of sub-classes) in accordance with decisions of the 1945 Conference of Statisticians.

Owing to limitations of space, details published in general tables in this chapter are confined either to the sixteen classes of industry or to total factory activity. Particulars of certain of the sub-classes shown below are published in the latter portion of this chapter and full details for all sub-classes may be found in the Bulletin *Secondary Industries*, published annually.

The classes and sub-classes in the current classification of factories are as follows:—

CLASSIFICATION OF FACTORIES.

CLASS I.—TREATMENT OF NON-METALLIFEROUS MINE AND QUARRY PRODUCTS.

Coke Works.
Briquetting and Pulverized Coal.
Carbide.
Lime, Plaster of Paris, Asphalt.
Fibrous Plaster and Products.
Marble, Slate, etc.
Cement, Portland.
Asbestos Cement Sheets and Mouldings.
Other Cement Goods.
Other.

CLASS II.—BRICKS, POTTERY, GLASS, ETC.

Bricks and Tiles.
Earthenware, China, Porcelain and Terracotta.
Glass (other than Bottles).
Glass Bottles.
Other.

CLASS III.—CHEMICALS, DYES, EXPLOSIVES, PAINTS, OILS, GREASE.

Industrial and Heavy Chemicals and Acids.
Pharmaceutical and Toilet Preparations.
Explosives (including Fireworks).
White Lead, Paints and Varnish.
Oils, Vegetable.
Oils, Mineral.
Oils, Animal.
Boiling-down, Tallow-refining.
Soap and Candles.
Chemical Fertilizers.
Inks, Polishes, etc.
Matches.
Other.

CLASS IV.—INDUSTRIAL METALS, MACHINES, CONVEYANCES.

Smelting, Converting, Refining, Rolling of Iron and Steel.
Foundries (Ferrous).
Plant, Equipment and Machinery, etc.
Other Engineering.
Extracting and Refining of other Metals; Alloys.
Electrical Machinery, Cables and Apparatus.
Construction and Repair of Vehicles (10 groups).
Ship and Boat Building and Repairing, Marine Engineering (Government and Other).
Cutlery and Small Hand Tools.
Agricultural Machines and Implements.
Non-Ferrous Metals—
Rolling and Extrusion.
Founding, Casting, etc.
Iron and Steel Sheets.
Sheet Metal Working, Pressing, and Stamping.
Pipes, Tubes and Fittings—Ferrous.
Wire and Wire Netting (including Nails).
Stoves, Ovens and Ranges.
Gas Fittings and Meters.
Lead Mills.
Sewing Machines.

CLASS IV.—INDUSTRIAL METALS, MACHINES, CONVEYANCES—continued.

Arms, Ammunition (excluding Explosives).
Wireless and Amplifying Apparatus.
Other Metal Works.

CLASS V.—PRECIOUS METALS, JEWELLERY, PLATE

Jewellery.
Watches and Clocks (including Repairs).
Electroplating (Gold, Silver, Chromium, etc.).

CLASS VI.—TEXTILES AND TEXTILE GOODS (NOT DRESS).

Cotton Ginning.
Cotton Spinning and Weaving.
Wool—Carding, Spinning, Weaving.
Hosiery and Other Knitted Goods.
Silk, Natural.
Rayon, Nylon and Other Synthetic Fibres.
Flax Mills.
Rope and Cordage.
Canvas Goods, Tents, Tarpaulins, etc.
Bags and Sacks.
Textile Dyeing, Printing and Finishing
Other.

CLASS VII.—SKINS AND LEATHER (NOT CLOTHING OR FOOTWEAR).

Furriers and Fur-dressing.
Woolscouring and Fellmongery.
Tanning, Curryng and Leather-dressing.
Saddlery, Harness and Whips.
Machine Belting (Leather or other).
Bags, Trunks, etc.

CLASS VIII.—CLOTHING (EXCEPT KNITTED).

Tailoring and Ready-made Clothing.
Waterproof and Oilskin Clothing.
Dressmaking, Hemstitching.
Millinery.
Shirts, Collars, Underclothing.
Foundation Garments.
Handkerchiefs, Ties and Scarves.
Hats and Caps.
Gloves.
Boots and Shoes (not Rubber).
Boot and Shoe Repairing.
Boot and Shoe Accessories.
Umbrellas and Walking Sticks.
Dyeworks and Cleaning, etc.
Other.

CLASS IX.—FOOD, DRINK AND TOBACCO.

Flour-milling.
Cereal Foods and Starch.
Animal and Bird Foods.
Chaffcutting and Corncrushing.
Bakeries (including Cakes and Pastry).
Biscuits.
Sugar-mills.
Sugar-refining.

CLASS IX.—FOOD, DRINK AND TOBACCO—

continued.

Confectionery (including Chocolate and Icing Sugar).
 Jam, Fruit and Vegetable Canning.
 Pickles, Sauces, Vinegar.
 Bacon Curing.
 Butter Factories.
 Cheese Factories.
 Condensed and Dried Milk Factories.
 Margarine.
 Meat and Fish Preserving.
 Condiments, Coffee, Spices.
 Ice and Refrigerating.
 Salt.
 Aerated Waters, Cordials, etc.
 Breweries.
 Distilleries.
 Wine-making.
 Cider and Perry.
 Malting.
 Bottling.
 Tobacco, Cigars, Cigarettes, Snuff.
 Dehydrated Fruit and Vegetables.
 Ice Cream.
 Sausage Casings.
 Arrowroot.
 Other.

CLASS X.—SAWMILLS, JOINERY, BOXES, ETC.,
WOOD TURNING AND CARVING.

Sawmills.
 Plywood Mills (including Veneers).
 Bark Mills.
 Joinery.
 Cooperage.
 Boxes and Cases.
 Woodturning, Woodcarving, etc.
 Basketware and Wickerware (including Sea-grass and Bamboo Furniture).
 Perambulators (including Pushers and Strollers).
 Wall and Ceiling Boards (not Plaster or Cement).
 Other.

CLASS XI.—FURNITURE OF WOOD, BEDDING, ETC.
Cabinet and Furniture Making (including Billiard Tables and Upholstery).
Bedding and Mattresses (not Wire).
Furnishing Drapery.

CLASS XI.—FURNITURE OF WOOD, BEDDING, ETC.—

continued.

Picture Frames.
 Blinds.

CLASS XII.—PAPER, STATIONERY, PRINTING,
BOOKBINDING, ETC.

Newspapers and Periodicals.
 Printing—
 Government.
 General, including Bookbinding.
 Manufactured Stationery.
 Stereotyping, Electrotyping.
 Process and Photo Engraving.
 Cardboard Boxes, Cartons and Containers.
 Paper Bags.
 Paper-making.
 Pencils, Penholders, Chalks, Crayons.
 Other.

CLASS XIII.—RUBBER.

Rubber Goods (including Tyres Made).
 Tyre Retreading and Repairing.

CLASS XIV.—MUSICAL INSTRUMENTS.

Gramophones and Gramophone Records.
 Pianos, Piano-Players, Organs.
 Other.

CLASS XV.—MISCELLANEOUS PRODUCTS.

Linoleum, Leather-cloth, Oil-cloth, etc.
 Bone, Horn, Ivory and Shell.
 Plastic Moulding and Products.
 Brooms and Brushes.
 Optical Instruments and Appliances.
 Surgical and Other Scientific Instruments and Appliances.
 Photographic Material, (including Developing and Printing).
 Toys, Games and Sports Requisites.
 Artificial Flowers.
 Other.

CLASS XVI.—HEAT, LIGHT, AND POWER.

Electric Light and Power.
 Gas Works.

8. Factory Development since 1901—Australia.—The development of the manufacturing industries in Australia at intervals since 1901 is summarized in the following table:—

FACTORIES: AUSTRALIA.

Year.	Factories.	Employment.(a)	Salaries and Wages Paid.(b)	Value of—				
				Materials and Fuel Used.	Output.	Pro-duction.(c)	Land and Build-ings.	Plant and Ma-chinery.
	No.	'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
1901 ..	11,143	198	(d)	(d)	(d)	(d)	(d)	(d)
1911 ..	14,455	312	27,528	81,763	133,022	51,259	32,701	31,516
1920-21 ..	17,113	367	62,932	213,559	323,993	110,434	60,831	68,655
1930-31 ..	21,751	339	62,455	172,489	290,799	118,310	112,211	124,498
1940-41 ..	27,300	650	137,919	386,881	644,795	257,914	144,094	161,356
1950-51 ..	43,147	969	491,718	1,306,963	2,150,835	843,872	302,785	336,615
1954-55 ..	51,056	1,031	781,640	2,069,080	3,434,589	1,365,509	555,996	698,292
1955-56 ..	52,406	1,060	853,469	2,263,346	3,764,060	1,500,714	653,574	797,835
1956-57 ..	53,200	1,063	891,090	2,400,293	4,022,413	1,622,120	759,687	917,037
1957-58 ..	53,988	1,074	929,290	2,545,159	4,273,882	1,728,723	849,036	1,012,735
1958-59 ..	54,888	1,088	970,553	2,649,331	4,491,932	1,842,601	947,899	1,108,385

(a) 1901 and 1911—average employment during period of operation. Later years relate to average employment over whole year. Working proprietors are included in all years. (b) Excludes drawings by working proprietors. (c) Value of output less value of materials and fuel, etc., used. (d) Not available.

§ 2. Number of Factories.

1. Number of Factories in each State.—The following table shows the number of factories operating in each State in the years 1938–39 and 1954–55 to 1958–59:—

FACTORIES: NUMBER.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
1938–39	9,464	9,250	3,087	2,067	2,129	944	26,941
1954–55	20,837	15,861	5,284	3,750	3,727	1,597	51,056
1955–56	21,602	16,053	5,378	3,908	3,871	1,594	52,406
1956–57	21,838	16,232	5,537	4,063	3,935	1,595	53,200
1957–58	22,270	16,426	5,528	4,168	3,941	1,655	53,988
1958–59	22,684	16,527	5,651	4,235	4,125	1,666	54,888

2. Number of Factories in Industrial Classes.—(i) *Australia*. The next table shows the number of factories in Australia during 1938–39 and 1954–55 to 1958–59 classified to the industrial classes agreed upon by the Conference of Statisticians in 1930. Details of some of the principal industries included in the table will be found in § 11, page 196.

FACTORIES: NUMBER IN INDUSTRIAL CLASSES: AUSTRALIA.

Class of Industry.	1938–39.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
I. Treatment of Non-metalliferous Mine and Quarry Products	564	1,303	1,337	1,331	1,328	1,344
II. Bricks, Pottery, Glass, etc.	471	662	666	672	660	663
III. Chemicals, Dyes, Explosives, Paints, Oils, Grease	666	1,124	1,139	1,162	1,184	1,218
IV. Industrial Metals, Machines, Conveyances	7,255	17,842	18,860	19,766	20,518	21,254
V. Precious Metals, Jewellery, Plate	290	746	782	824	808	818
VI. Textiles and Textile Goods (not Dress)	611	1,356	1,362	1,364	1,364	1,373
VII. Skins and Leather (not Clothing or Footwear)	533	810	789	785	761	729
VIII. Clothing (except Knitted)	4,314	7,370	7,390	7,312	7,266	7,195
IX. Food, Drink and Tobacco	5,202	7,433	7,468	7,315	7,455	7,580
X. Sawmills, Joinery, Boxes, etc., Wood Turning and Carving	2,822	5,845	5,895	5,872	5,764	5,676
XI. Furniture of Wood, Bedding, etc.	1,149	2,200	2,203	2,199	2,200	2,184
XII. Paper, Stationery, Printing, Book-binding, etc.	1,816	2,224	2,303	2,367	2,413	2,518
XIII. Rubber	299	495	513	536	565	606
XIV. Musical Instruments	34	79	84	88	88	86
XV. Miscellaneous Products	413	1,119	1,188	1,185	1,207	1,251
<i>Total, Classes I. to XV.</i>	26,439	50,608	51,979	52,778	53,581	54,495
XVI. Heat, Light and Power	502	448	427	422	407	393
Grand Total	26,941	51,056	52,406	53,200	53,988	54,888

Although not the best index of manufacturing activity, the number of factories affords some indication of the development of secondary industries. Except for the two war years 1941–42 and 1942–43, when there were decreases, the number of factories increased each year from 1931–32 to 1958–59. In the latter year, the number of factories in Australia reached the record total of 54,888 or more than twice the number in 1938–39.

(ii) *States, 1958-59.* The following table shows the number of factories in each State classified according to the nature of the industry:—

FACTORIES: NUMBER IN INDUSTRIAL CLASSES, 1958-59.

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
I. Treatment of Non-metalliferous Mine and Quarry Products ..	448	450	100	166	126	54	1,344
II. Bricks, Pottery, Glass, etc. ..	313	160	56	67	48	19	663
III. Chemicals, Dyes, Explosives, Paints, Oils, Grease ..	595	361	82	88	67	25	1,218
IV. Industrial Metals, Machines, Conveyances ..	8,886	6,018	2,164	1,883	1,754	549	21,254
V. Precious Metals, Jewellery, Plate ..	375	265	42	60	69	7	818
VI. Textiles and Textile Goods (not Dress) ..	480	754	28	51	42	18	1,373
VII. Skins and Leather (not Clothing or Footwear) ..	325	275	53	38	30	8	729
VIII. Clothing (except Knitted) ..	3,346	2,442	532	369	412	94	7,195
IX. Food, Drink and Tobacco ..	2,745	2,178	1,059	690	619	289	7,580
X. Sawmills, Joinery, Boxes, etc., Wood Turning and Carving ..	2,231	1,382	801	350	456	456	5,676
XI. Furniture of Wood, Bedding, etc. ..	830	665	288	167	172	62	2,184
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	1,107	892	206	152	124	37	2,518
XIII. Rubber ..	237	158	93	57	41	20	606
XIV. Musical Instruments ..	36	25	8	9	8	..	86
XV. Miscellaneous Products ..	629	431	60	50	66	15	1,251
<i>Total Classes I. to XV. ..</i>	<i>22,583</i>	<i>16,456</i>	<i>5,572</i>	<i>4,197</i>	<i>4,034</i>	<i>1,653</i>	<i>54,495</i>
XVI. Heat, Light and Power ..	101	71	79	38	91	13	393
Grand Total ..	22,684	16,527	5,651	4,235	4,125	1,666	54,888

§ 3. Classification of Factories according to Number of Persons Employed.

1. *General.*—The size classification of factories is based on the average weekly number of persons employed during the period of operation (including working proprietors).

2. *States, 1958-59.*—The following table shows, for each State, the number of factories classified according to the average number of persons employed:—

FACTORIES: CLASSIFICATION ACCORDING TO SIZE OF FACTORY, 1958-59.

Size of Factory (Persons employed).	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
NUMBER OF FACTORIES.							
Under 4 ..	9,364	6,062	1,955	1,443	2,148	736	21,708
4 ..	1,927	1,320	560	387	158	151	4,503
5 to 10 ..	5,305	3,876	1,534	1,147	931	400	13,193
11 to 20 ..	2,784	2,261	723	582	417	174	6,941
21 to 50 ..	1,945	1,725	531	390	307	126	5,024
51 to 100 ..	711	643	152	155	94	46	1,801
101 to 200 ..	342	371	112	67	46	15	953
201 to 300 ..	106	104	46	32	13	4	305
301 to 400 ..	65	42	13	9	4	5	138
401 to 500 ..	28	34	7	4	3	1	77
501 to 750 ..	49	56	12	7	2	4	130
751 to 1,000 ..	15	15	2	..	1	..	33
Over 1,000 ..	43	18	4	12	1	4	82
Total ..	22,684	16,527	5,651	4,235	4,125	1,666	54,888

The relative importance of large and small factories is illustrated by the following classification of the average number of persons employed according to the size of factory in which they work:—

FACTORIES: AVERAGE NUMBER OF PERSONS EMPLOYED ACCORDING TO SIZE OF FACTORY, 1958-59.

Size of Factory (Persons employed).	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
AVERAGE NUMBER EMPLOYED DURING PERIOD WORKED.							
Under 4	17,475	12,314	4,056	2,968	4,187	1,447	42,447
4	7,708	5,280	2,240	1,548	632	604	18,012
5 to 10	36,759	27,604	10,562	7,917	5,997	2,755	91,594
11 to 20	40,739	33,184	10,435	8,527	5,848	2,589	101,322
21 to 50	60,595	54,311	16,628	12,316	9,407	3,869	157,126
51 to 100	49,788	44,817	10,873	10,561	6,272	3,298	125,609
101 to 200	47,733	51,670	15,819	9,057	6,348	2,149	132,776
201 to 300	26,076	25,121	11,205	7,707	3,049	1,016	74,174
301 to 400	22,558	14,339	4,338	3,295	1,315	1,702	47,547
401 to 500	12,671	15,284	3,273	1,732	1,306	412	34,678
501 to 750	30,670	33,579	7,251	4,382	1,167	2,703	79,752
751 to 1,000	13,116	12,896	1,867	..	780	..	28,659
Over 1,000	87,598	34,578	6,952	24,615	2,928	6,296	162,967
Total	453,486	364,977	105,499	94,625	49,236	28,840	1,096,663
Average per Factory ..	19.99	22.08	18.67	22.34	11.94	17.31	19.98

3. Australia, 1938-39 and 1954-55 to 1958-59.—In the following table, factories in Australia are classified in broad groups for a series of years according to the number of persons employed:—

FACTORIES: CLASSIFICATION ACCORDING TO NUMBER OF PERSONS EMPLOYED, AUSTRALIA.

Year.			Establishments Employing on the Average—							
			20 and under.		21 to 100.		101 and upwards.		Total.	
			Es- tablish- ments.	Persons em- ployed.	Es- tablish- ments.	Persons em- ployed.	Es- tablish- ments.	Persons em- ployed.	Es- tablish- ments.	Persons em- ployed.
1938-39—										
Number	per	establish- ment	21,982	129,505	4,013	170,971	946	272,022	26,941	572,498
Average .. ..	..	.. ..	..	5.89	..	42.60	..	287.55	..	21.25
1954-55—										
Number	per	establish- ment	42,835	241,233	6,603	273,257	1,618	524,307	51,056	1,038,797
Average .. ..	..	.. ..	..	5.63	..	41.38	..	324.00	..	20.35
1955-56—										
Number	per	establish- ment	44,012	246,087	6,736	279,991	1,658	542,428	52,406	1,068,506
Average .. ..	..	.. ..	..	5.59	..	41.57	..	327.16	..	20.39
1956-57—										
Number	per	establish- ment	44,790	249,069	6,730	279,974	1,680	541,872	53,200	1,070,915
Average .. ..	..	.. ..	..	5.56	..	41.60	..	322.54	..	20.13
1957-58—										
Number	per	establish- ment	45,569	250,748	6,730	279,750	1,689	550,777	53,988	1,081,275
Average .. ..	..	.. ..	..	5.50	..	41.57	..	326.10	..	20.03
1958-59—										
Number	per	establish- ment	46,345	253,375	6,825	282,735	1,718	560,553	54,888	1,096,663
Average .. ..	..	.. ..	..	5.47	..	41.43	..	326.28	..	19.98

§ 4. Power Equipment in Factories.

1. General.—Since 1936–37, statistics of power equipment in factories relate to the “rated horse-power” of engines ordinarily in use and engines in reserve or idle, omitting obsolete engines. In addition, particulars of the power equipment of Central Electric Stations are collected in greater detail. To avoid duplication, it is essential that some distinction should be made between Central Electric Stations and other classes of industries. In the following tables, Central Electric Stations have been treated separately from other factories. In 1958–59, 344 factories were recorded as using no power other than manual.

2. Rated Horse-power of Engines in Factories other than Central Electric Stations.—The following table shows the total number of factories and the total rated horse-power of engines and electric motors ordinarily in use and in reserve or idle during 1958–59:—

FACTORIES(a): TOTAL RATED HORSE-POWER OF ENGINES AND ELECTRIC MOTORS, 1958-59.

State.	Factories.(a)	Rated Horse-power of Engines and Motors.	
		Ordinarily In Use.(b)	In Reserve or Idle (omitting obsolete).
New South Wales	22,620	2,188,405	389,148
Victoria	16,483	1,388,498	194,929
Queensland	5,588	525,703	80,742
South Australia	4,200	385,032	47,958
Western Australia	4,037	254,395	36,718
Tasmania	1,655	253,433	35,371
Australia	54,583	4,995,466	784,866

(a) Includes Gas Works but excludes Central Electric Stations. (b) Excludes motors driven electricity generated in factories not classified as Central Electric Stations.

3. Rated Horse-power of Engines and Electric Motors Ordinarily in Use.—(i) *According to Type, States.* Particulars of the types and the total rated horse-power of engines, etc., ordinarily in use in each State are given below:—

FACTORIES(a): TOTAL RATED HORSE-POWER OF ENGINES AND ELECTRIC MOTORS ORDINARILY IN USE, 1958-1959.

State.	Steam.		Internal Combustion.			Water.	Motors driven by Electricity.		Total. (b)
	Reciprocating.	Turbine.	Gas.	Petrol or Other Light Oils.	Heavy Oils.		Purchased.	Own Generation. (c)	
N.S.W. ..	75,620	146,189	861	41,526	16,774	150	1,907,285	89,997	2,188,405
Victoria ..	20,768	71,359	2,845	31,677	9,627	919	1,251,303	53,795	1,388,498
Queensland ..	74,819	63,832	2,638	16,215	11,078	..	357,121	97,941	525,703
S. Australia ..	7,414	9,550	981	7,867	9,346	10	349,864	23,930	385,032
W. Australia ..	10,912	11,640	3,495	15,736	9,203	..	203,409	5,282	254,395
Tasmania ..	1,372	24	1	9,895	475	192	241,474	36	253,433
Australia ..	190,905	302,594	10,821	122,916	56,503	1,271	4,310,356	270,981	4,995,466

(a) Includes Gas Works but excludes Central Electric Stations. (b) Excludes particulars in column (c).

(ii) *According to Type, Australia.* In the following table, details of the total rated horse-power of the various types of engines in use are given for Australia for the years 1938-39, and 1954-55 to 1958-59:—

FACTORIES(a): TYPES AND TOTAL RATED HORSE-POWER OF ENGINES AND ELECTRIC MOTORS ORDINARILY IN USE, AUSTRALIA.

Year.	Steam.		Internal Combustion.			Water.	Motors driven by Electricity.		Total. (b)
	Reciprocating.	Turbine.	Gas.	Petrol or Other Light Oils.	Heavy Oils.		Purchased.	Own Generation. (c)	
1938-39 ..	268,409	84,149	32,916	17,971	55,799	1,616	1,017,912	179,890	1,478,772
1954-55 ..	225,192	202,162	7,407	103,954	93,465	1,695	3,398,135	226,625	4,032,010
1955-56 ..	223,147	254,497	8,746	112,944	90,314	1,641	3,674,373	243,800	4,365,662
1956-57 ..	214,875	262,559	7,973	120,533	74,060	1,431	3,860,595	260,708	4,542,026
1957-58 ..	204,854	266,659	9,487	118,106	64,498	1,770	4,062,006	274,287	4,727,380
1958-59 ..	190,905	302,594	10,821	122,916	56,503	1,271	4,310,356	270,981	4,995,466

(a) Includes Gas Works but excludes Central Electric Stations.

(b) Excludes particulars in column (c).

(iii) *In Classes of Industry, 1958-59.* The next table shows the total rated horse-power of engines and electric motors ordinarily in use in the various classes of industry in each State:—

FACTORIES(a): TOTAL RATED HORSE-POWER OF ENGINES AND ELECTRIC MOTORS ORDINARILY IN USE(b), 1958-59.

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
I. Treatment of Non-metallic Mine and Quarry Products ..	92,824	53,686	20,357	23,126	17,009	15,433	222,435
II. Bricks, Pottery, Glass, etc. ..	53,595	35,715	8,551	9,799	11,047	2,396	121,103
III. Chemicals, Dyes, Explosives, Paints, Oils, Grease ..	165,686	145,861	11,193	21,706	43,795	12,304	400,545
IV. Industrial Metals, Machines, Conveyances ..	1,185,050	443,841	98,470	177,298	69,505	63,406	2,037,570
V. Precious Metals, Jewellery, Plate ..	5,168	4,238	1,172	997	645	59	12,279
VI. Textiles and Textile Goods (not Dress) ..	55,801	106,975	7,154	8,263	2,868	8,248	189,309
VII. Skins and Leather (not Clothing or Footwear) ..	18,759	18,577	5,500	6,185	3,087	519	52,627
VIII. Clothing (except Knitted) ..	24,097	30,070	4,633	3,606	2,576	981	65,963
IX. Food, Drink and Tobacco ..	208,963	208,344	218,102	57,625	40,308	20,619	753,961
X. Sawmills, Joinery, Boxes, etc., Wood Turning and Carving ..	180,359	125,017	106,807	40,525	50,328	42,115	545,151
XI. Furniture of Wood, Bedding, etc. ..	18,954	16,141	7,993	6,697	4,344	1,406	55,535
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	72,425	92,687	21,976	14,365	5,757	84,941	292,151
XIII. Rubber ..	57,847	63,272	10,104	4,993	981	446	137,643
XIV. Musical Instruments ..	1,665	312	51	12	8	..	2,048
XV. Miscellaneous Products ..	28,572	27,405	766	2,293	933	434	60,403
<i>Total, Classes I. to XV. ..</i>	<i>2,169,765</i>	<i>1,372,141</i>	<i>522,829</i>	<i>377,490</i>	<i>253,191</i>	<i>253,307</i>	<i>4,948,723</i>
XVI. Gas Works ..	18,640	16,357	2,874	7,542	1,204	126	46,743
Grand Total ..	2,188,405	1,388,498	525,703	385,032	254,395	253,433	4,995,466

(a) Excludes Central Electric Stations.

(b) Excludes motors driven by electricity generated in factories not classified as Central Electric Stations.

4. Capacity of Engines and Generators installed in Central Electric Stations.—(i) *According to Type, Australia.* Particulars of the type and the capacity of engines and generators installed in Central Electric Stations in Australia in 1958–59 are given in the following table:—

CENTRAL ELECTRIC STATIONS: POWER EQUIPMENT, AUSTRALIA, 1958-59.

Particulars.	Capacity of Engines and Generators.						Total.
	Steam.		Internal Combustion.			Water.	
	Reciprocating.	Turbine.	Gas.	Petrol or Other Light Oils.	Heavy Oils.		
Engines installed .. Rated H.P.	5,346	5,628,240	10,902	21,842	305,514	1,566,490	7,538,334
Generators installed—							
Kilowatt capacity—							
Total installed .. kW	3,984	4,168,297	7,398	14,227	211,445	1,125,770	5,531,121
Effective capacity .. „	3,824	3,882,332	5,760	12,817	192,771	1,084,916	5,182,420
Horse-power equivalent—							
Total installed .. H.P.	5,340	5,587,519	9,917	19,071	283,438	1,509,072	7,414,357
Effective capacity .. „	5,126	5,204,188	7,721	17,181	258,406	1,454,308	6,946,930

NOTE.—The number of establishments classified as Central Electric Stations in 1958–59 was 305.

(ii) *States.* Details of the capacity of engines and generators installed in Central Electric Stations in each State in 1958–59 are given in the next table:—

CENTRAL ELECTRIC STATIONS: NUMBER AND POWER EQUIPMENT, 1958-59.

Particulars.	N.S.W.	Vic.	Q'and.	S. Aust.	W. Aust.	Tas.	Aust.
Central Electric Stations No.	64	44	63	35	88	11	305
Engines installed .. Rated H.P.	3,089,985	1,786,817	955,894	552,175	452,673	700,790	7,538,334
Generators installed—							
Kilowatt capacity—							
Total installed .. kW	2,276,091	1,309,751	712,384	406,050	330,090	496,755	5,531,121
Effective capacity .. "	2,125,148	1,276,788	564,329	399,881	324,699	491,575	5,182,420
Horse-power equivalent—							
Total installed .. H.P.	3,051,054	1,755,695	954,937	544,302	442,479	665,890	7,414,357
Effective capacity .. "	2,848,718	1,711,509	756,472	536,032	435,253	658,946	6,946,930

§ 5. Employment in Factories.

1. Number Employed.—(i) *General.* All persons employed in the manufacturing activities of a factory, including proprietors who work in their own business and "out-workers" (see para. 4 (ii), p. 173), are counted as factory employees, while those employed in selling and distributing, such as salesmen, travellers, collectors, carters employed solely on outward delivery of manufactured goods and retailing storemen, are excluded. Prior to 1945–46, the occupational grouping collected was (i) working proprietors; (ii) managers and overseers; (iii) accountants and clerks; (iv) enginedrivers and firemen; (v) workers in factory, skilled and unskilled; (vi) carters and messengers; and (vii) persons working regularly at home for the establishment. This grouping did not record separate details for technical staff (e.g., chemists, draftsmen, etc.) and supervisory staff and, in 1945–46, the collection form was amended to obtain the following groupings:—(i) Working proprietors; (ii) managerial and clerical staff including salaried managers and working directors; (iii) chemists, draftsmen and other laboratory and research staff; (iv) foremen and overseers; (v) skilled and unskilled workers; (vi) carters (excluding delivery only), messengers and persons working regularly at home.

Prior to the year 1928–29, average employment in factories was computed by dividing the sum of the number employed each week by the number of weeks worked. The figures, therefore, represented the average number employed over the period worked, which, for many factories, was less than a full year. Commencing with the year 1928–29, the figures represent the equivalent average number employed over a full year of fifty-two weeks. The classification of factories according to the number of persons employed (*see* § 3, p. 165), however, is still based on the old method, but for all other purposes the average number engaged over the full year is used.

(ii) *Australia.* Particulars of the numbers employed, the increase in employment and the rate per cent. of such increase are given for the years 1938–39 and 1954–55 to 1958–59 in the following table:—

FACTORIES: EMPLOYMENT, AUSTRALIA.

Year.	Males.			Females.			Persons.		
	Number Employed.	Increase on Preceding Year.		Number Employed.	Increase on Preceding Year.		Number Employed.	Increase on Preceding Year	
		Number.	Per Cent.		Number.	Per Cent.		Number.	Per Cent.
1938–39 ..	412,591	3,989	0.98	152,515	1,957	1.30	565,106	5,946	1.06
1954–55 ..	788,691	30,183	3.98	242,391	11,357	4.92	1,031,082	41,540	4.20
1955–56 ..	811,847	23,156	2.94	248,651	6,260	2.58	1,060,498	29,416	2.85
1956–57 ..	813,551	1,704	0.21	249,847	1,196	0.48	1,063,398	2,900	0.27
1957–58 ..	822,515	8,964	1.10	251,292	1,445	0.58	1,073,807	10,409	0.98
1958–59 ..	834,940	12,425	1.51	253,316	2,024	0.81	1,088,256	14,449	1.35

(iii) *States.* The following table shows, for the same years, (a) the average number of persons employed in manufacturing industries in each State; (b) for each State, the percentage of the total number employed in factories in Australia; and (c) the number so employed per ten thousand of mean population in each State and Australia:—

FACTORIES: EMPLOYMENT.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
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AVERAGE NUMBER EMPLOYED DURING FULL YEAR (52 WEEKS).

1938–39 ..	228,781	201,831	54,110	43,371	23,211	13,802	565,106
1954–55 ..	419,810	346,648	100,293	89,565	49,314	25,452	1,031,082
1955–56 ..	433,081	355,185	102,473	92,589	50,108	27,062	1,060,498
1956–57 ..	436,369	355,204	103,426	91,981	48,748	27,670	1,063,398
1957–58 ..	445,802	357,143	101,844	92,472	48,462	28,084	1,073,807
1958–59 ..	449,518	362,979	104,753	94,165	48,417	28,424	1,088,256

PERCENTAGE OF AUSTRALIAN TOTAL.

1938–39 ..	40.48	35.72	9.58	7.67	4.11	2.44	100
1954–55 ..	40.71	33.62	9.73	8.69	4.78	2.47	100
1955–56 ..	40.84	33.49	9.66	8.73	4.73	2.55	100
1956–57 ..	41.04	33.40	9.73	8.65	4.58	2.60	100
1957–58 ..	41.51	33.26	9.48	8.61	4.52	2.62	100
1958–59 ..	41.31	33.35	9.63	8.65	4.45	2.61	100

FACTORIES: EMPLOYMENT—*continued.*

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
PER 1,000 OF POPULATION.							
1938-39 ..	84	108	54	73	50	58	82
1954-55 ..	121	139	76	111	75	81	113
1955-56 ..	123	139	76	111	75	85	114
1956-57 ..	122	135	75	107	71	85	112
1957-58 ..	122	132	73	104	69	84	111
1958-59 ..	121	131	73	104	68	83	110

2. Rates of Increase, 1938-39 and 1954-55 to 1958-59.—The percentage increase on the average number of persons employed in the preceding year is shown below for each State:—

FACTORIES: ANNUAL PERCENTAGE INCREASE OF PERSONS EMPLOYED.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
1938-39 ..	1.74	0.02	3.82	-1.62	0.34	4.80	1.06
1954-55 ..	4.28	4.64	2.22	4.75	3.91	3.51	4.20
1955-56 ..	3.16	2.46	2.17	3.38	1.61	6.33	2.85
1956-57 ..	0.75	0.00	0.93	-0.66	-2.71	2.25	0.27
1957-58 ..	2.18	0.55	-1.53	0.53	-0.59	1.50	0.98
1958-59 ..	0.83	1.63	2.86	1.83	-0.09	1.21	1.35

NOTE.—Minus sign (—) indicates decrease.

3. Persons Employed in Industrial Classes.—(i) *Australia.* The following table shows the average number of persons employed in factories in each industrial class in Australia for the years 1938-39 and 1954-55 to 1958-59:—

FACTORIES: PERSONS EMPLOYED IN INDUSTRIAL CLASSES, AUSTRALIA.

Class of Industry.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
I. Treatment of Non-metalliferous Mine and Quarry Products ..	10,343	20,560	20,893	20,318	20,883	21,093
II. Bricks, Pottery, Glass, etc. ..	15,709	22,549	22,914	22,162	22,448	23,093
III. Chemicals, Dyes, Explosives, Paints, Oils, Grease ..	19,816	41,324	44,718	45,753	46,986	47,876
IV. Industrial Metals, Machines, Conveyances ..	177,677	422,124	444,274	447,405	459,345	469,446
V. Precious Metals, Jewellery, Plate ..	3,726	6,029	5,894	6,053	5,905	5,483
VI. Textiles and Textile Goods (not Dress)	46,082	69,046	68,356	70,176	68,875	67,467
VII. Skins and Leather (not Clothing or Footwear) ..	10,767	14,502	13,810	13,454	13,171	12,935
VIII. Clothing (except Knitted) ..	86,092	112,802	110,820	109,266	106,947	106,098
IX. Food, Drink and Tobacco ..	83,846	125,934	126,493	124,723	123,471	125,408
X. Sawmills, Joinery, Boxes, etc., Wood Turning and Carving ..	30,739	61,153	61,914	60,008	59,238	60,101
XI. Furniture of Wood, Bedding, etc. ..	15,287	21,342	21,508	21,258	22,099	22,110
XII. Paper, Stationery, Printing, Book-binding, etc. ..	39,913	59,777	62,713	64,719	66,285	68,327
XIII. Rubber ..	7,502	16,325	17,287	17,844	18,105	18,467
XIV. Musical Instruments ..	451	1,623	1,739	1,902	1,101	1,025
XV. Miscellaneous Products ..	7,727	19,962	20,967	21,746	22,332	22,286
Total, Classes I. to XV. ..	555,677	1,015,052	1,044,300	1,046,787	1,057,191	1,071,215
XVI. Heat, Light and Power ..	9,429	16,030	16,198	16,611	16,616	17,041
Grand Total ..	565,106	1,031,082	1,060,498	1,063,398	1,073,807	1,088,256

(ii) *States.* Particulars of the numbers employed in each industrial class are shown in the following table for each State:—

FACTORIES: PERSONS EMPLOYED IN INDUSTRIAL CLASSES, 1958-59.

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
I. Treatment of Non-metallic Mine and Quarry Products	8,330	6,522	1,931	2,037	1,497	776	21,093
II. Bricks, Pottery, Glass, etc. ..	11,984	5,846	1,324	2,167	1,415	357	23,093
III. Chemicals, Dyes, Explosives, Paints, Oils, Grease ..	21,995	17,392	1,835	3,182	2,668	804	47,876
IV. Industrial Metals, Machines, Conveyances	212,456	139,115	37,012	51,952	19,380	9,531	469,446
V. Precious Metals, Jewellery, Plate	2,348	2,150	297	443	224	21	5,483
VI. Textiles and Textile Goods (not Dress)	21,570	37,500	2,133	2,556	926	2,782	67,467
VII. Skins and Leather (not Clothing or Footwear)	5,365	4,559	1,147	1,201	593	70	12,935
VIII. Clothing (except Knitted) ..	43,393	45,783	7,757	4,994	3,317	854	106,098
IX. Food, Drink and Tobacco ..	38,468	37,383	27,414	10,828	6,704	4,611	125,408
X. Sawmills, Joinery, Boxes, etc. Wood Turning and Carving ..	20,073	15,092	10,624	5,041	5,722	3,549	60,101
XI. Furniture of Wood, Bedding, etc.	9,002	6,492	2,908	1,969	1,306	433	22,110
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	28,844	22,846	5,958	4,103	2,609	3,967	68,327
XIII. Rubber	7,813	7,207	1,759	1,241	282	165	18,467
XIV. Musical Instruments ..	648	247	60	34	36	1	1,025
XV. Miscellaneous Products ..	10,350	9,863	599	829	450	195	22,286
<i>Total Classes I. to XV.</i> ..	<i>442,639</i>	<i>357,997</i>	<i>102,758</i>	<i>92,577</i>	<i>47,129</i>	<i>28,115</i>	<i>1,071,215</i>
XVI. Heat, Light and Power ..	6,879	4,982	1,995	1,588	1,288	309	17,041
Grand Total	449,518	362,979	104,753	94,165	48,417	28,424	1,088,256

4. *Persons Employed According to Occupational Grouping.*—(i) *General.* In the following table, the average number of persons employed in each State during 1958-59 is classified according to occupational grouping. As mentioned previously, persons employed in factories are now classified on a basis different from that adopted prior to 1945-46. The nature of this change is indicated in para. 1 of this section (*see p. 170*).

FACTORIES: PERSONS EMPLOYED—OCCUPATIONAL GROUPING, 1958-59.

State.	Average Number of Persons Employed.						Total.
	Working Proprietors.	Managerial and Clerical Staff, etc. (a)	Chemists, Draftsmen, etc.	Foremen and Overseers.	Workers in Factory (Skilled and Unskilled).	Carters (excluding Delivery only) and Messengers, etc. (b)	
New South Wales ..	16,034	55,649	7,336	19,804	348,478	2,217	449,518
Victoria ..	13,704	42,960	6,152	17,208	280,828	2,127	362,979
Queensland ..	4,912	10,539	1,185	4,210	83,510	397	104,753
South Australia ..	2,986	11,513	1,806	4,527	72,976	357	94,165
Western Australia ..	2,732	4,268	470	2,171	38,682	94	48,417
Tasmania ..	1,033	2,937	598	1,371	22,354	131	28,424
<i>Total Males</i> ..	<i>35,720</i>	<i>78,631</i>	<i>15,903</i>	<i>45,688</i>	<i>654,599</i>	<i>4,399</i>	<i>834,940</i>
<i>Total Females</i> ..	<i>5,681</i>	<i>49,235</i>	<i>1,644</i>	<i>3,603</i>	<i>192,229</i>	<i>924</i>	<i>253,316</i>
Total Persons ..	41,401	127,866	17,547	49,291	846,828	5,323	1,088,256

(a) Includes salaried managers and working directors.
at home.

(b) Includes persons working regularly

(ii) *Outworkers.* The term "outworker" or "homeworker" has acquired a special meaning in connexion with manufacturing industries, and embraces only persons to whom work is given out by factories to be done at home. Owing to the amended employment groupings adopted in 1945-46, persons working regularly at home for factories are now included with carters, messengers and others and separate details are no longer available.

5. *Monthly Employment, 1938-39 and 1954-55 to 1958-59.*—(i) *Australia.* The following table shows the number of persons (excluding working proprietors) employed in factories on the pay-day nearest to the 15th of each month for the year 1938-39 and on the last pay-day of the month in the later years:—

FACTORIES: MONTHLY EMPLOYMENT, AUSTRALIA.

(EXCLUDING WORKING PROPRIETORS.)

Month.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
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MALES.

July	387,693	739,450	768,382	775,580	781,156	794,374
August	389,979	741,435	770,312	774,506	780,630	794,537
September	391,576	743,638	771,715	774,119	782,988	795,464
October	393,977	746,139	774,071	774,455	785,289	796,964
November	395,192	750,285	777,304	777,127	785,825	799,368
December	394,438	747,230	772,509	772,479	781,054	792,351
January	385,742	750,823	774,077	773,419	786,520	794,996
February	392,056	755,456	778,552	779,646	790,835	800,208
March	395,146	757,956	779,527	780,973	793,327	802,408
April	391,005	760,139	780,418	777,262	791,617	804,259
May	393,609	761,555	780,252	779,757	791,403	804,691
June	390,963	763,488	777,968	780,156	791,098	805,641

FEMALES.

July	147,282	231,222	238,883	240,918	242,399	244,610
August	149,294	232,603	240,857	241,429	243,489	245,349
September	151,159	234,818	243,289	243,199	245,019	245,882
October	152,473	236,930	244,840	245,130	246,360	246,199
November	152,806	238,146	244,582	245,006	247,805	247,098
December	151,165	236,804	242,366	242,175	244,653	244,235
January	141,853	236,664	240,574	243,191	245,340	243,625
February	151,883	242,008	247,841	248,336	250,891	249,847
March	154,854	242,573	247,209	250,728	252,918	250,384
April	152,614	239,460	244,588	245,873	247,439	249,209
May	150,693	238,450	243,989	244,054	245,855	248,365
June	148,601	238,529	242,548	242,966	244,052	248,915

PERSONS.

July	534,975	970,672	1,007,265	1,016,498	1,023,555	1,038,984
August	539,273	974,038	1,011,169	1,015,935	1,024,119	1,039,886
September	542,735	978,456	1,015,004	1,017,318	1,028,007	1,041,346
October	546,450	983,069	1,018,911	1,019,585	1,031,649	1,043,163
November	547,998	988,431	1,021,886	1,022,133	1,033,630	1,046,466
December	545,603	984,034	1,014,875	1,014,654	1,025,707	1,036,586
January	527,595	987,487	1,014,651	1,016,610	1,031,860	1,038,621
February	543,939	997,464	1,026,393	1,027,982	1,041,726	1,050,055
March	550,000	1,000,529	1,026,736	1,031,701	1,046,245	1,052,792
April	543,619	999,599	1,025,006	1,023,135	1,039,056	1,053,468
May	544,302	1,000,005	1,024,241	1,023,811	1,037,258	1,053,056
June	539,564	1,002,017	1,020,516	1,023,122	1,035,150	1,054,556

(ii) *States.* Particulars of the numbers employed in each State on the last pay-day of each month in 1958-59 are shown in the following table:—

FACTORIES: MONTHLY EMPLOYMENT, 1958-59.

(EXCLUDING WORKING PROPRIETORS.)

Month.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
MALES.							
July	326,309	248,758	84,310	73,776	39,216	22,005	794,374
August	326,008	248,665	84,985	73,750	39,171	21,958	794,537
September	325,989	249,519	84,850	73,856	39,296	21,954	795,464
October	326,292	250,322	84,988	74,010	39,287	22,065	796,964
November	327,488	251,345	84,862	74,203	39,361	22,109	799,368
December	326,274	251,174	78,565	74,165	39,428	22,745	792,351
January	326,351	252,506	79,102	74,833	39,196	23,008	794,996
February	327,525	254,291	81,422	75,043	39,379	22,548	800,208
March	328,011	254,914	81,611	75,556	39,744	22,572	802,408
April	328,723	254,527	82,911	75,692	39,731	22,675	804,259
May	329,466	254,049	83,598	75,466	39,492	22,620	804,691
June	329,822	254,083	84,396	75,758	39,136	22,446	805,641

FEMALES.							
July	106,023	95,022	16,439	16,051	6,203	4,872	244,610
August	106,583	94,894	17,053	16,064	6,220	4,535	245,349
September	106,864	95,284	16,921	16,185	6,303	4,325	245,882
October	106,730	96,000	16,713	16,182	6,343	4,231	246,199
November	106,708	96,769	16,709	16,160	6,338	4,414	247,098
December	105,052	95,541	16,386	16,044	6,321	4,891	244,235
January	103,683	95,018	16,884	16,757	6,223	5,060	243,625
February	105,662	99,057	17,716	16,390	6,307	4,715	249,847
March	106,245	99,163	17,027	16,659	6,425	4,865	250,384
April	106,147	98,614	16,431	16,209	6,461	5,347	249,209
May	106,506	97,441	16,467	16,195	6,407	5,349	248,365
June	107,136	97,522	16,547	16,376	6,212	5,122	248,915

PERSONS.							
July	432,332	343,780	100,749	89,827	45,419	26,877	1,038,984
August	432,591	343,559	102,038	89,814	45,391	26,493	1,039,886
September	432,853	344,803	101,771	90,041	45,599	26,279	1,041,346
October	433,022	346,322	101,701	90,192	45,630	26,296	1,043,163
November	434,196	348,114	101,571	90,363	45,699	26,523	1,046,466
December	431,326	346,715	94,951	90,209	45,749	27,636	1,036,586
January	430,034	347,524	95,986	91,590	45,419	28,068	1,038,621
February	433,187	353,348	99,138	91,433	45,686	27,263	1,050,055
March	434,256	354,077	98,638	92,215	46,169	27,437	1,052,792
April	434,870	353,141	99,342	91,901	46,192	28,022	1,053,468
May	435,972	351,490	100,065	91,661	45,899	27,969	1,053,056
June	436,958	351,605	100,943	92,134	45,348	27,568	1,054,556

6. Distribution of Employees According to Age.—The extension of statistics of employment in factories, decided upon at the Conference of Australian Statisticians held in 1945, provides for a distribution of employees (excluding working proprietors) into seven age-groups from 1945-46 onwards, instead of three as in previous years. The particulars are collected as at June. The number employed in each age-group on the last pay-day in June, 1958 and 1959, are given below:—

FACTORIES: DISTRIBUTION OF EMPLOYEES ACCORDING TO AGE, JUNE, 1958 AND 1959.

(EXCLUDING WORKING PROPRIETORS.)

Age Group.	June, 1958.			June, 1959.		
	Males.	Females.	Persons.	Males.	Females.	Persons.
Under 16 years ..	8,710	6,924	15,634	8,411	7,234	15,645
16 years	13,817	9,180	22,997	13,556	8,957	22,513
17 "	16,347	9,790	26,137	16,532	9,878	26,410
18 "	16,802	10,025	26,827	17,085	9,639	26,724
19 "	16,337	9,421	25,758	16,099	9,069	25,168
20 "	15,315	8,737	24,052	15,189	8,468	23,657
21 " and over ..	703,770	189,975	893,745	718,769	195,670	914,439
Total	791,098	244,052	1,035,150	805,641	248,915	1,054,556

The following table shows the age distribution in sexes for Australia in June, 1939, and 1955 to 1959:—

FACTORIES: DISTRIBUTION OF EMPLOYEES IN JUNE, ACCORDING TO AGE, AUSTRALIA.

(EXCLUDING WORKING PROPRIETORS.)

In June.	Under 16 Years.	16 Years.	17 Years.	18 Years.	19 Years.	20 Years.	21 Years and Over.	Total.
MALES.								
1939(a) ..	16,109	76,418					298,436	390,963
1955 ..	9,093	13,137	14,694	15,341	13,772	12,838	684,613	763,488
1956 ..	9,061	13,025	14,985	15,348	14,884	13,635	697,030	777,968
1957 ..	9,158	13,310	15,289	16,104	15,219	14,162	696,914	780,156
1958 ..	8,710	13,817	16,347	16,802	16,337	15,315	703,770	791,098
1959 ..	8,411	13,556	16,532	17,085	16,099	15,189	718,769	805,641
FEMALES.								
1939(a) ..	15,497	56,273					76,831	148,601
1955 ..	6,605	8,547	9,902	9,994	8,600	7,710	187,171	238,529
1956 ..	6,557	8,163	9,390	10,102	9,072	7,801	191,463	242,548
1957 ..	6,828	8,292	9,276	9,715	8,986	7,959	191,910	242,966
1958 ..	6,924	9,180	9,790	10,025	9,421	8,737	189,975	244,052
1959 ..	7,234	8,957	9,878	9,639	9,069	8,468	195,670	248,915
PERSONS.								
1939(a) ..	31,606	132,691					375,267	539,564
1955 ..	15,698	21,684	24,596	25,335	22,372	20,548	871,784	1,002,017
1956 ..	15,618	21,188	24,375	25,450	23,956	21,436	888,493	1,020,516
1957 ..	15,986	21,602	24,565	25,819	24,205	22,121	888,824	1,023,122
1958 ..	15,634	22,997	26,137	26,827	25,758	24,052	893,745	1,035,150
1959 ..	15,645	22,513	26,410	26,724	25,168	23,657	914,439	1,054,556

(a) Details for individual ages 16-20 years not available separately.

§ 6. Sex Distribution in Factories.

1. Average Number of Males and Females Employed.—The following table shows the average number of males and females employed in factories in each State for 1938–39 and 1954–55 to 1958–59:—

FACTORIES: MALES AND FEMALES EMPLOYED.

State.	1938–39.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
MALES.						
New South Wales ..	167,172	316,673	327,106	329,386	337,211	340,757
Victoria ..	136,218	251,675	258,006	258,119	259,404	263,847
Queensland ..	43,941	83,290	85,123	85,899	84,871	87,454
South Australia ..	35,406	73,714	76,144	75,543	75,909	77,427
Western Australia ..	18,704	42,294	43,340	42,122	42,039	41,951
Tasmania ..	11,150	21,045	22,128	22,482	23,081	23,504
Australia ..	412,591	788,691	811,847	813,551	822,515	834,940

FEMALES.						
New South Wales ..	61,609	103,137	105,975	106,983	108,591	108,761
Victoria ..	65,613	94,973	97,179	97,085	97,739	99,132
Queensland ..	10,169	17,003	17,350	17,527	16,973	17,299
South Australia ..	7,965	15,851	16,445	16,438	16,563	16,738
Western Australia ..	4,507	7,020	6,768	6,626	6,423	6,466
Tasmania ..	2,652	4,407	4,934	5,188	5,003	4,920
Australia ..	152,515	242,391	248,651	249,847	251,292	253,316

2. Rate of Variation for each Sex.—The percentages of increase or decrease on the average numbers of males and females employed in the preceding year are shown below for the years 1938–39 and 1954–55 to 1958–59:—

FACTORIES: ANNUAL PERCENTAGE INCREASES OF MALES AND FEMALES EMPLOYED.

State.	1938–39.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
MALES.						
New South Wales ..	1.69	3.81	3.29	0.70	2.38	1.05
Victoria ..	0.04	4.56	2.52	0.04	0.50	1.71
Queensland ..	3.79	2.29	2.20	0.91	–1.20	3.04
South Australia ..	–2.39	4.33	3.30	–0.79	0.48	2.00
Western Australia ..	–0.30	4.59	2.47	–2.81	–0.20	–0.21
Tasmania ..	4.40	3.93	5.15	1.60	2.66	1.83
Australia ..	0.98	3.98	2.94	0.21	1.10	1.51

FEMALES.						
New South Wales ..	1.88	5.72	2.75	0.95	1.50	0.16
Victoria ..	–0.03	4.85	2.32	–0.10	0.88	1.43
Queensland ..	3.96	1.85	2.04	1.02	–3.16	1.92
South Australia ..	1.98	6.77	3.75	–0.04	0.76	1.06
Western Australia ..	3.06	..	–3.59	–2.10	–3.06	0.67
Tasmania ..	6.51	1.54	11.96	5.15	–3.57	–1.66
Australia ..	1.30	4.92	2.58	0.50	0.58	0.81

NOTE.—Minus sign (–) indicates decrease.

3. **Masculinity of Persons Employed in Factories.**—The extent to which females are employed in the factories of Australia may perhaps be more clearly shown by the proportion of males to females employed in each State. The following table shows particulars for the years 1938–39 and 1954–55 to 1958–59:—

FACTORIES: MASCULINITY(a) OF PERSONS EMPLOYED.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
1938–39	271	208	432	445	415	420	271
1954–55	307	265	490	465	602	478	325
1955–56	309	265	491	463	640	448	327
1956–57	308	266	490	460	636	433	326
1957–58	311	265	500	458	655	461	327
1958–59	313	266	506	463	649	478	330

(a) Number of males per 100 females.

For a number of years prior to 1926–27, there were on the average 300 males employed in factories for every 100 females, but by 1932–33, as a result of the particularly severe effect of the depression on the heavier industries where males predominate in number, there were only 239 males employed to every 100 females. With the subsequent recovery of employment in the heavier industries, the proportion of males per 100 females increased to 271 in 1937–38 and 1938–39. The enlistment of men in the armed services, the expansion of industry and the consequential absorption of women brought about by the 1939–45 War caused a decrease in masculinity from 1938–39 to 1943–44. However, following the cessation of hostilities in 1945 and the return of servicemen to civilian life, the number of females employed in factories declined and masculinity increased. In 1958–59, there were 330 males to every 100 females employed in factories.

4. **Employment of Females in Particular Industries.**—(i) *General.* The majority of females in manufacturing industries are employed in four classes, namely:—IV., Industrial Metals, Machines, etc.; VI., Textiles; VIII., Clothing; and IX., Food, Drink and Tobacco. In 1958–59, these industries accounted for 78.32 per cent. of all females in factories. In two classes only did the number of females exceed the number of males, namely, in Class VI., Textiles, where there were 132 females to every 100 males and in Class VIII., Clothing, with 236 females to every 100 males. The following table shows the average number of males and females employed in each of the four classes in 1958–59:—

MALES AND FEMALES EMPLOYED IN PARTICULAR INDUSTRIES, 1958–59.

Class.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
MALES.							
IV. Industrial Metals, etc. ..	185,261	122,383	34,650	46,066	18,459	8,989	415,808
VI. Textiles and Textile Goods ..	9,064	16,186	751	1,280	528	1,309	29,118
(not Dress) ..	12,085	14,028	2,255	1,651	1,129	367	31,515
VIII. Clothing (except Knitted) ..	26,878	26,988	23,314	7,959	5,290	3,163	93,592
IX. Food, Drink and Tobacco ..	107,469	84,262	26,484	20,471	16,545	9,676	264,907
All Other Classes ..	340,757	263,847	87,454	77,427	41,951	23,504	834,940
Total ..							
FEMALES.							
IV. Industrial Metals, etc. ..	27,195	16,732	2,362	5,886	921	542	53,638
VI. Textiles and Textile Goods ..	12,506	21,314	1,382	1,276	398	1,473	38,349
(not Dress) ..	31,308	31,755	5,502	3,343	2,188	487	74,583
VIII. Clothing (except Knitted) ..	11,590	10,395	4,100	2,869	1,414	1,448	31,816
IX. Food, Drink and Tobacco ..	26,162	18,936	3,953	3,364	1,545	970	54,930
All Other Classes ..	108,761	99,132	17,299	16,738	6,466	4,920	253,316
Total ..							

(ii) *Females Employed in Clothing Manufacture.* The employment of females in the several industries of Class VIII., Clothing, the class in which the largest number of females is employed, and the relation of their number to that of the males so employed, are shown in the following table.

EMPLOYMENT IN CLOTHING INDUSTRIES, FEMININITY(a), 1958-59.

Industry.	New South Wales.			Victoria.			Other States.		
	Males.	Fe- males.	Femi- ninity. (a)	Males.	Fe- males.	Femi- ninity. (a)	Males.	Fe- males.	Femi- ninity. (a)
Tailoring and Ready-made Clothing	3,024	14,548	481	2,750	6,963	253	985	3,136	318
Waterproof and Oilskin Clothing	109	495	454	143	404	283	6	11	183
Dressmaking, Hemstitching	117	1,302	1,113	1,172	7,280	621	139	2,418	1,740
Millinery	226	1,184	524	157	632	403	39	382	979
Shirts, Collars, Underclothing	502	4,378	872	762	5,859	769	166	1,922	1,158
Foundation Garments	120	1,443	1,203	237	1,516	640	22	152	691
Handkerchiefs, Ties and Scarves	162	1,019	629	81	355	438	24	115	479
Hats and Caps	452	481	106	162	174	107	26	107	412
Gloves	115	351	305	44	166	377	50	127	254
Boots and Shoes (not Rubber)	3,171	3,198	101	5,462	5,769	106	1,581	1,186	75
Boot and Shoe Repairing	1,493	134	9	817	91	11	759	71	9
Boot and Shoe Accessories	203	102	50	351	214	61	36	7	19
Umbrellas and Walking Sticks	44	94	214	25	63	252	21	42	200
Dyeworks and Cleaning (including Renovating and Repairing)	2,302	2,238	97	1,772	1,970	111	1,548	1,844	119
Other	45	341	758	93	299	322	..	..	..
Total	12,085	31,308	259	14,028	31,755	226	5,402	11,520	213

(a) Number of females per 100 males.

§ 7. Child Labour in Factories.

1. **Conditions of Child Labour.**—The employment of young persons in factories in the States is regulated by Acts of Parliament, as is the case with the employment of female labour. The object of the restrictions imposed is to ensure, among other things, that a proper period shall be devoted to primary education, and that the early years of labour shall not exhaust the worker before the attainment of full growth.

2. **Number of Children Employed, 1939, 1958 and 1959.**—In the returns for the various States, the term "child" denotes any person under sixteen years of age. The decline in the number of children employed from the peak of 33,553 reached in June, 1940, to 15,645 in June, 1959, was probably caused largely by the raising of the school leaving age in New South Wales and Tasmania and the high level of employment which has enabled parents to keep their children at school beyond the statutory leaving age.

The following table shows the number of children of each sex employed in manufacturing industries in June of the years mentioned:—

FACTORIES: CHILDREN(a) EMPLOYED, JUNE.

State.	1939.			1958.			1959.		
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.
New South Wales	5,759	7,084	12,843	2,575	1,929	4,504	2,453	2,175	4,628
Victoria	6,167	5,005	11,172	2,805	2,608	5,413	2,595	2,535	5,130
Queensland	1,790	1,334	3,124	1,588	1,151	2,739	1,571	1,226	2,797
South Australia	1,296	1,053	2,349	873	796	1,669	860	829	1,689
Western Australia	705	521	1,226	769	327	1,096	822	331	1,153
Tasmania	392	500	892	100	113	213	110	138	248
Australia	16,109	15,497	31,606	8,710	6,924	15,634	8,411	7,234	15,645

(a) Under sixteen years of age.

3. Industries Employing Child Labour.—The distribution of children employed in factories in June, 1959, and the proportion of children employed to total employees are given in the following table according to the class of industry:—

FACTORIES: CHILDREN(a) EMPLOYED, BY CLASSES, AUSTRALIA, JUNE, 1959.

Class of Industry.	Children Employed.		Total Employees. (b)		Proportion (per cent.) of Children Employed to Total Employees. (b)	
	Males.	Females.	Males.	Females.	Males.	Females.
Industrial Metals, Machines, Conveyances	3,757	825	407,077	54,107	0.92	1.52
Textiles and Textile Goods (not Dress)	496	1,389	28,618	38,814	1.73	3.58
Clothing (except Knitted)	552	2,946	26,222	72,632	2.11	4.06
Food, Drink and Tobacco	957	726	87,882	29,218	1.09	2.48
Sawmills, Joinery, Boxes, etc.	714	75	52,249	3,159	1.37	2.37
Furniture of Wood, Bedding, etc.	446	89	16,323	3,885	2.73	2.29
Paper, Stationery, Printing, Bookbinding, etc.	703	645	49,781	17,679	1.41	3.65
All other Industries	786	539	137,489	29,421	0.57	1.83
Total	8,411	7,234	805,641	248,915	1.04	2.91

(a) Under sixteen years of age.

(b) Excludes working proprietors.

4. Apprenticeship.—In all the States, Acts are in force for the regulation of the age at which children may be employed in gainful occupations. Legislative provision is also made for the regulation of apprenticeship under the various State Factories Acts or Arbitration Acts. These Acts, while laying down general principles, leave to the wages tribunals the actual determination of the conditions under which apprentices may be employed.

§ 8. Value of Production, Materials Used, Salaries and Wages.

Note.—In all tables relating to salaries and wages paid in factories, the amounts drawn by working proprietors are excluded.

1. General.—The gross value of factory output for 1958–59 was £4,491,932,000, of which £2,485,079,000 was the value of the materials used, including containers, etc., tools replaced and repairs to plant and buildings, and £164,252,000 the value of the power, fuel and light used. The difference between the sum of the last two amounts and the gross value of output, namely, £1,842,601,000, represents the net value of factory production, defined as “the value of consumable commodities produced during the year, deducting, so far as possible, the value of goods consumed in process of production other than depreciation (see para. 6 of this section, p. 185). The gross value of factory output and the value of materials used each contain inherent elements of duplication, as the output of some factories becomes the materials used in other factories. They therefore have little statistical significance. The net value of factory production indicates the relative importance of manufacturing in the Australian economy in constant money terms. The total amount of salaries and wages paid in factories in 1958–59 was £970,553,000. This figure, which excludes amounts drawn by working proprietors, was the highest ever recorded and shows an increase of £41,263,000 or 4.44 per cent. on that for the previous year.

2. Salaries and Wages Paid.—(i) *In Classes of Industry, 1958–59.* The amounts of salaries and wages paid in the various classes of industry in each State are shown in the following table:—

FACTORIES: SALARIES AND WAGES PAID, 1958–59.

(£'000.)

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
I. Treatment of Non-metalliferous Mine and Quarry Products	8,555	6,521	1,829	2,001	1,275	757	20,938
II. Bricks, Pottery, Glass, etc. .. .	11,795	5,696	1,148	2,055	1,230	344	22,268
III. Chemicals, Dyes, Explosives, Paints, Oils, Grease .. .	23,046	18,080	1,668	3,009	2,704	924	49,431
IV. Industrial Metals, Machines, Conveyances .. .	208,183	133,215	30,221	47,755	15,606	9,249	444,229
V. Precious Metals, Jewellery, Plate .. .	1,909	1,815	201	335	145	14	4,419
VI. Textiles and Textile Goods (not Dress) .. .	16,847	29,398	1,325	2,010	722	2,080	52,382
VII. Skins and Leather (not Clothing or Footwear) .. .	4,669	3,896	905	1,074	500	53	11,097
VIII. Clothing (except Knitted) .. .	27,465	30,655	4,128	3,036	1,689	503	67,476
IX. Food, Drink and Tobacco .. .	32,932	32,545	25,206	8,874	5,347	3,696	108,600
X. Sawmills, Joinery, Boxes, etc., Wood Turning and Carving .. .	17,091	12,944	8,107	4,277	4,458	2,905	49,782
XI. Furniture of Wood, Bedding, etc. .. .	7,626	5,225	1,966	1,456	889	288	17,450
XII. Paper, Stationery, Printing, Bookbinding, etc. .. .	27,993	22,626	4,971	3,651	2,280	4,359	65,880
XIII. Rubber .. .	7,844	7,254	1,412	1,292	215	147	18,164
XIV. Musical Instruments .. .	622	220	39	21	25	..	927
XV. Miscellaneous Products .. .	9,128	8,599	410	635	287	142	19,201
<i>Total, Classes I. to XV.</i> .. .	<i>405,705</i>	<i>318,689</i>	<i>83,536</i>	<i>81,481</i>	<i>37,372</i>	<i>25,461</i>	<i>952,244</i>
XVI. Heat, Light and Power .. .	7,310	5,647	1,961	1,664	1,360	367	18,309
Grand Total .. .	413,015	324,336	85,497	83,145	38,732	25,828	970,553

(ii) *Totals and Averages, 1938–39 and 1954–55 to 1958–59.* The following table shows the total amount of salaries and wages paid, and the average amount paid per employee in each State, for each of the years indicated. The figures exclude working proprietors and the amounts drawn by them:—

FACTORIES: TOTAL AND AVERAGE SALARIES AND WAGES PAID.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
TOTAL AMOUNT PAID (£'000).							
1938–39	44,606	36,027	10,887	8,169	4,574	2,480	106,743
1954–55	326,615	262,750	68,300	70,373	34,738	18,864	781,640
1955–56	359,023	286,944	72,460	76,237	37,207	21,598	853,469
1956–57	378,332	296,608	77,780	77,818	36,916	23,636	891,090
1957–58	396,692	310,540	78,958	79,844	37,935	25,321	929,290
1958–59	413,015	324,336	85,497	83,145	38,732	25,828	970,553
AVERAGE PER EMPLOYEE (£.)							
1938–39	201.77	185.64	210.78	195.57	207.90	188.31	196.31
1954–55	804.43	790.00	714.83	810.32	744.17	771.27	789.35
1955–56	860.91	841.16	740.93	848.43	785.23	828.65	837.35
1956–57	900.06	869.21	789.63	872.87	801.95	886.68	871.98
1957–58	923.40	904.81	814.86	891.80	829.22	936.70	900.46
1958–59	952.82	928.60	856.33	911.89	847.81	942.94	927.13

In comparing the figures in the preceding table, regard should be paid to the nature of certain industries which are carried on to a greater extent in some States than in others. In Victoria, for instance, a large number of hands are employed in Class VIII., Clothing, comprising a relatively high percentage of women and children. The highest average wages per employee in 1958-59 were paid in New South Wales, Tasmania and Victoria, in that order.

The average earnings per employee rose annually from 1938-39 to 1943-44 when a level of £291 was attained as a result of war-time conditions. In 1944-45, the average dropped to £285 and remained at this level in 1945-46. From 1945-46, average earnings rose each year and in 1958-59 reached a record level of slightly over £927.

(iii) *Total and Average Earnings of Males and Females, 1938-39 and 1954-55 to 1958-59.* Particulars for these years are given in the following table:—

FACTORIES : TOTAL AND AVERAGE SALARIES AND WAGES—MALES AND FEMALES.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
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MALES.

TOTAL AMOUNT PAID (£'000).

1938-39	38,272	29,006	9,920	7,488	4,129	2,234	91,049
1954-55	274,467	213,377	61,125	62,942	31,748	16,736	660,395
1955-56	302,880	234,784	64,918	68,213	34,236	19,146	724,177
1956-57	318,612	241,587	69,873	69,645	33,895	20,878	754,490
1957-58	334,245	253,342	70,954	71,153	34,938	22,516	787,148
1958-59	348,302	265,615	77,049	74,268	35,647	23,138	824,019

AVERAGE PER MALE EMPLOYEE (£).

1938-39	239.24	224.47	238.59	220.95	235.49	212.09	231.84
1954-55	906.61	891.40	773.47	883.13	797.80	833.05	877.84
1955-56	967.45	955.00	802.89	925.47	839.62	904.78	933.92
1956-57	1,010.17	981.79	857.48	953.42	856.63	970.11	970.91
1957-58	1,034.19	1,023.48	881.32	970.33	884.66	1,018.45	1,001.28
1958-59	1,065.21	1,052.69	926.77	992.28	905.12	1,026.66	1,031.05

FEMALES.

TOTAL AMOUNT PAID (£'000).

1938-39	6,334	7,021	967	681	445	246	15,694
1954-55	52,148	49,373	7,175	7,431	2,990	2,128	121,245
1955-56	56,143	52,160	7,542	8,024	2,971	2,452	129,292
1956-57	59,720	55,020	7,907	8,174	3,021	2,758	136,600
1957-58	62,447	57,198	8,004	8,691	2,997	2,805	142,142
1958-59	64,713	58,721	8,448	8,877	3,085	2,690	146,534

AVERAGE PER FEMALE EMPLOYEE (£).

1938-39	103.66	108.25	96.00	86.44	99.58	93.19	103.92
1954-55	514.94	529.63	431.68	477.12	434.21	487.12	509.56
1955-56	540.06	547.42	445.22	496.84	449.61	500.06	530.23
1956-57	569.11	578.14	464.68	507.53	467.32	537.11	557.95
1957-58	586.89	597.81	487.69	536.42	479.14	569.66	578.10
1958-59	607.71	605.66	505.75	543.49	489.60	554.24	591.74

(iv) *Managers, Clerical Staff and Other Employees.* A further analysis of salaries and wages paid is given in the following table for 1958-59 and shows the amounts paid to managerial and clerical staff, including salaried managers and working directors, chemists, draftsmen and other laboratory and research staff, and those paid to other employees. As previously mentioned, amounts drawn by working proprietors are excluded in all cases.

FACTORIES: SALARIES AND WAGES PAID TO MANAGERS, CLERICAL STAFF, ETC., AND OTHER EMPLOYEES, AUSTRALIA, 1958-59.

Class of Industry.	Managers, Clerical Staff, Chemists, Draftsmen, etc.		All Other Employees.	
	Males.	Females.	Males.	Females.
	£'000.	£'000.	£'000.	£'000.
I. Treatment of Non-metalliferous Mine and Quarry Products	2,772	475	17,571	120
II. Bricks, Pottery, Glass, etc.	2,012	447	19,085	725
III. Chemicals, Dyes, Explosives, Paints, Oils, Grease	11,358	2,444	31,519	4,110
IV. Industrial Metals, Machines, Conveyances	66,346	13,936	345,547	18,399
V. Precious Metals, Jewellery, Plate	535	170	3,270	445
VI. Textiles and Textile Goods (not Dress)	5,178	2,184	24,514	20,506
VII. Skins and Leather (not Clothing or Footwear)	1,327	264	7,932	1,575
VIII. Clothing (except Knitted)	4,983	2,612	20,894	38,987
IX. Food, Drink and Tobacco	14,793	4,092	76,037	13,677
X. Sawmills, Joinery, Boxes, etc., Wood Turning and Carving	5,229	1,128	42,799	624
XI. Furniture of Wood, Bedding, etc.	1,816	590	13,375	1,669
XII. Paper, Stationery, Printing, Bookbinding, etc.	8,779	2,848	46,714	7,539
XIII. Rubber	2,691	606	13,209	1,658
XIV. Musical Instruments	117	22	713	76
XV. Miscellaneous Products	2,909	890	11,784	3,618
<i>Total, Classes I. to XV.</i>	130,845	32,708	674,963	113,728
XVI. Heat, Light and Power	1,808	72	16,403	26
Grand Total	132,653	32,780	691,366	113,754
Average paid per employee	£ 1,403.46	£ 644.31	£ 981.10	£ 578.56

3. **Power, Fuel and Light Used.**—(i) *In Classes of Industry, 1958-59.* The expenditure by factories on power, fuel and light, including the value of lubricants and water, is of considerable importance; in 1958-59 it amounted to a new high level of £164,252,000 an increase of £5,454,000 as compared with the previous year and nearly eleven times the corresponding value in 1938-39. The following table shows the value of power, fuel and light, etc., used in the different classes of industry:—

FACTORIES: VALUE OF POWER, FUEL AND LIGHT USED(a), 1958-59.
(£'000.)

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
I. Treatment of Non-metalliferous Mine and Quarry Products	2,817	2,235	870	960	508	369	7,759
II. Bricks, Pottery, Glass, etc.	3,972	2,043	465	623	513	165	7,781
III. Chemicals, Dyes, Explosives, Paints, Oils, Grease	6,446	6,384	367	826	2,047	410	16,480
IV. Industrial Metals, Machines, Conveyances	31,611	7,742	2,148	5,585	1,102	2,030	50,218
V. Precious Metals, Jewellery, Plate	146	143	12	40	11	1	353
VI. Textiles and Textile Goods (not Dress)	1,494	2,424	72	220	59	241	4,510
VII. Skins and Leather (not Clothing or Footwear)	414	495	73	147	73	5	1,207
VIII. Clothing (except Knitted)	907	966	175	130	84	41	2,303
IX. Food, Drink and Tobacco	6,094	5,951	3,012	1,359	1,016	501	17,933
X. Sawmills, Joinery, Boxes, etc., Wood Turning and Carving	1,525	782	597	271	341	316	3,832
XI. Furniture of Wood, Bedding, etc.	196	133	49	42	23	6	449
XII. Paper, Stationery, Printing, Bookbinding, etc.	1,429	1,928	268	315	100	1,331	5,371
XIII. Rubber	1,063	1,166	178	145	28	21	2,601
XIV. Musical Instruments	39	11	1	(b)	(b)	..	51
XV. Miscellaneous Products	614	606	13	56	16	5	1,310
<i>Total, Classes I. to XV.</i>	58,767	33,009	8,300	10,719	5,921	5,442	122,158
XVI. Heat, Light and Power	17,508	10,368	6,664	3,871	3,666	17	42,094
Grand Total	76,275	43,377	14,964	14,590	9,587	5,459	164,252

(a) Includes value of lubricants and water.

(b) Less than £500.

(ii) *Values of Items, 1958-59.* The following table shows the values of the various items of power, fuel and light used in factories in each State, during the year:—

FACTORIES: VALUE OF ITEMS OF POWER, FUEL AND LIGHT USED(a), 1958-59.

(£'000.)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Coal, Black	20,707	3,009	8,266	(b) 3,971	2,537	1,290	39,779
.. Brown .. ..	..	7,582	..	..	..	..	7,582
Brown Coal Briquettes .. ..	..	1,464	..	..	..	..	1,464
Coke	12,555	842	481	2,949	213	328	17,368
Wood	453	559	383	372	378	199	2,345
Fuel Oil	9,746	11,272	1,274	2,321	3,533	721	28,867
Tar (Fuel)	947	164	19	95	22	22	1,270
Electricity	21,856	13,910	3,419	3,713	2,053	2,563	47,514
Gas	3,730	1,120	187	227	87	41	5,391
Other (Charcoal, etc.)	2,195	1,061	150	308	275	113	4,102
Water	2,761	1,543	418	397	260	91	5,470
Lubricating Oils	1,325	851	367	237	229	91	3,100
Total	76,275	43,377	14,964	14,590	9,587	5,459	164,252

(a) Includes value of lubricants and water. (b) Includes £1,308,000 the value of 651,000 tons of Leigh Creek coal.

(iii) *Quantities of Fuel Used, 1958-59.* The following table shows the quantities of fuel used in factories in each State during the year:—

FACTORIES: QUANTITIES OF FUEL USED, 1958-59.

Particulars.	Unit.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Coal, Black	'000 tons	5,983	483	1,820	(a) 1,119	582	265	10,252
.. Brown .. ..	..	..	10,582	..	..	..	..	10,582
Brown Coal Briquettes .. ..	..	..	305	..	..	..	..	305
Coke .. ..	..	2,097	86	43	309	19	18	2,572
Wood .. ..	..	204	275	214	199	281	89	1,262
Fuel Oil	'000 gals.	169,497	204,971	14,051	39,953	64,861	9,537	502,870
Tar (Fuel) .. ..	..	31,908	3,018	273	2,247	609	353	38,408

(a) Includes 651,000 tons of Leigh Creek coal.

(iv) *Total Value, 1938-39 and 1954-55 to 1958-59.* The next table shows the amounts expended on power, fuel and light during these years:—

FACTORIES: VALUE OF POWER, FUEL AND LIGHT USED.(a)

(£'000.)

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
1938-39	7,652	4,000	1,423	1,018	1,169	438	15,700
1954-55	60,925	31,767	11,620	12,897	8,046	3,127	128,382
1955-56	66,469	34,598	11,980	12,830	9,053	4,097	139,027
1956-57	71,445	40,381	13,130	14,130	9,225	4,799	153,110
1957-58	73,452	42,762	13,152	14,933	9,425	5,074	158,798
1958-59	76,275	43,377	14,964	14,590	9,587	5,459	164,252

(a) Includes value of lubricants and water.

4. *Value of Materials Used.*—(i) *In Classes of Industry, 1958-59.* The value of materials used (which includes the value of containers, packing, etc., the cost of tools replaced and repairs to plant) in factories in Australia in 1958-59 reached £2,485,079,000, representing

55.3 per cent. of the value of the final output (*see* para. 5). The following table shows the value of the materials used in various classes of industry in each State:—

FACTORIES: VALUE OF MATERIALS USED, 1958-59.(a)

(£'000.)

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
I. Treatment of Non-metalliferous Mine and Quarry Products ..	30,561	13,801	4,339	4,617	2,605	1,276	57,199
II. Bricks, Pottery, Glass, etc. ..	10,892	5,254	1,002	2,381	774	232	20,535
III. Chemicals, Dyes, Explosives, Paints, Oils, Grease ..	127,282	100,165	9,266	12,654	34,501	2,400	286,268
IV. Industrial Metals, Machines, Conveyances ..	481,180	213,429	53,850	93,917	22,293	16,914	881,583
V. Precious Metals, Jewellery, Plate ..	1,859	1,984	95	223	75	9	4,245
VI. Textiles and Textile Goods (not Dress) ..	38,243	67,531	4,332	3,989	3,474	4,767	122,336
VII. Skins and Leather (not Clothing or Footwear) ..	12,877	10,649	2,713	4,099	974	224	31,536
VIII. Clothing (except Knitted) ..	46,899	49,765	4,962	3,531	2,009	440	107,606
IX. Food, Drink and Tobacco ..	170,412	182,920	164,182	38,417	26,827	16,499	599,257
X. Sawmills, Joinery, Boxes, etc., Wood Turning and Carving ..	39,146	27,430	16,841	10,435	7,409	6,431	107,692
XI. Furniture of Wood, Bedding, etc. ..	16,110	10,134	4,100	2,789	1,882	536	35,551
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	52,893	51,224	8,725	6,320	3,330	8,140	130,632
XIII. Rubber ..	18,055	17,876	3,531	1,864	366	205	41,897
XIV. Musical Instruments ..	945	226	29	9	13		1,222
XV. Miscellaneous Products ..	15,815	19,929	504	1,064	385	83	37,780
<i>Total, Classes I. to XV.</i>	<i>1,063,169</i>	<i>772,317</i>	<i>278,471</i>	<i>186,309</i>	<i>106,917</i>	<i>58,156</i>	<i>2,465,339</i>
XVI. Heat, Light and Power ..	7,693	6,399	2,286	2,049	936	377	19,740
Grand Total ..	1,070,862	778,716	280,757	188,358	107,853	58,533	2,485,079

(a) *See* para. 1 of this section, p. 179.

(ii) *Total Amount, 1938-39 and 1954-55 to 1958-59.* The following table shows the value of materials used in factories for these years:—

FACTORIES: VALUE OF MATERIALS USED.(a)

(£'000.)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
1938-39 ..	120,502	82,971	42,596	20,309	9,604	5,321	281,303
1954-55 ..	802,617	616,666	224,336	169,136	80,583	47,360	1,940,698
1955-56 ..	884,582	674,846	231,584	183,196	96,360	53,751	2,124,319
1956-57 ..	948,393	707,729	244,974	184,209	104,969	56,909	2,247,183
1957-58 ..	1,016,928	768,459	248,647	183,880	111,525	56,922	2,386,361
1958-59 ..	1,070,862	778,716	280,757	188,358	107,853	58,533	2,485,079

(a) *See* para. 1 of this section, p. 179.

5. Value of Output.—(i) *In Classes of Industry, 1958-59.* The value of the output of factories in the various classes in each State in 1958-59 is shown in the following table. It represents the selling value at the factory (excluding delivery costs and charges) of goods made or processed during the year, including by-products. In addition, it includes the amount received for other work done such as repair work, assembling and making up for customers. The difference between the sum of the values of the materials and of the power, fuel and light used, and the value of output is the net value of factory production (*see* paras. 1 and 6 of this section).

FACTORIES: VALUE OF OUTPUT, 1958-59.(a)

(£'000.)

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
I. Treatment of Non-metalliferous Mine and Quarry Products ..	50,900	29,341	9,218	10,288	6,154	3,030	108,931
II. Bricks, Pottery, Glass, etc. ..	34,819	16,946	3,718	6,862	3,436	964	66,765
III. Chemicals, Dyes, Explosives, Paints, Oils, Grease ..	209,516	161,713	14,668	22,251	50,058	5,738	463,944
IV. Industrial Metals, Machines, Conveyances ..	872,213	435,371	105,256	171,026	48,333	35,386	1,667,585
V. Precious Metals, Jewellery, Plate ..	5,276	5,290	428	785	365	36	12,180
VI. Textiles and Textile Goods (not Dress) ..	70,793	123,507	6,679	7,891	4,997	8,605	222,472
VII. Skins and Leather (not Clothing or Footwear) ..	20,594	17,345	4,480	5,979	1,859	307	50,564
VIII. Clothing (except Knitted) ..	93,549	100,812	11,674	8,406	4,866	1,346	220,653
IX. Food, Drink and Tobacco ..	258,603	259,774	214,036	55,789	39,191	24,359	851,752
X. Sawmills, Joinery, Boxes, etc., Wood Turning and Carving ..	72,237	50,860	31,154	17,763	15,442	12,212	199,668
XI. Furniture of Wood, Bedding, etc. ..	29,155	19,837	7,508	5,339	3,407	1,017	66,263
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	108,301	99,012	18,565	13,560	7,857	20,391	267,686
XIII. Rubber ..	30,497	34,582	6,735	4,165	816	508	77,303
XIV. Musical Instruments ..	2,578	596	84	42	50	..	3,350
XV. Miscellaneous Products ..	34,160	37,439	1,146	2,379	919	277	76,320
<i>Total, Classes I. to XV.</i>	<i>1,893,191</i>	<i>1,392,425</i>	<i>435,349</i>	<i>332,525</i>	<i>187,770</i>	<i>114,176</i>	<i>4,355,436</i>
XVI. Heat, Light and Power ..	59,261	38,616	15,837	10,233	8,432	4,117	136,496
Grand Total ..	1,952,452	1,431,041	451,186	342,758	196,202	118,293	4,491,932

(a) See para. 1 of this section, p. 179.

(ii) *Total, 1938-39 and 1954-55 to 1958-59.* The following table shows the value of output in each State during these years:—

FACTORIES: VALUE OF OUTPUT.(a)

(£'000.)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
1938-39 ..	218,420	152,967	63,321	35,005	19,549	11,158	500,420
1954-55 ..	1,446,669	1,100,656	356,017	293,061	149,585	88,601	3,434,589
1955-56 ..	1,595,137	1,201,392	371,644	316,962	175,146	103,779	3,764,060
1956-57 ..	1,726,637	1,276,141	396,504	325,105	187,636	110,390	4,022,413
1957-58 ..	1,848,242	1,377,697	405,757	332,098	196,262	113,826	4,273,882
1958-59 ..	1,952,452	1,431,041	451,186	342,758	196,202	118,293	4,491,932

(a) See para. 1 of this section p. 179.

6. **Value of Production.**—(i) *In Classes of Industry, 1958-59.* The value of production for any industry was defined at the Conference of Statisticians at Sydney in 1925 as "the value of consumable commodities produced during the year, deducting, so far as possible, the value of goods consumed in process of production."

In accordance with this definition, it was agreed that a deduction consisting of the costs of raw material, containers, power, fuel, light, lubricants, water, tools replaced, repairs to plant and depreciation should be made from the "value of output". All these deductions with the exception of depreciation are included in the items "value of materials used" and "value of fuel used" as defined above. On account of the difficulty experienced in securing accurate figures for depreciation, it was agreed that no deduction should be made on this account. The net value of production as given in the following tables is obtained therefore, by deducting only "value of materials used" and "value of fuel used" from the "value of output".

Only certain selected items of costs are recorded in the annual census of production. It must not, therefore, be inferred that, when wages and salaries are deducted from the value of production, the whole of the "surplus" is available for interest and profit, as many miscellaneous expenses such as taxation, insurance, advertising and other overhead charges, as well as depreciation, also have to be taken into account.

The value of factory production, therefore, approximates "net value added" in the manufacturing process. In 1958-59, it amounted to £1,843 million to which Class IV., Industrial Metals, etc., with £736 million made the greatest contribution. The net value of production in 1958-59 showed an increase of £114 million (6.60 per cent.) over the figure for 1957-58 and £1,639 million over the value of production recorded in 1938-39.

The following table shows the value of production in 1958-59 in each State for the various classes of industry:—

FACTORIES: VALUE OF PRODUCTION, 1958-59.(a)

(£'000.)

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
I. Treatment of Non-metalliferous Mine and Quarry Products ..	17,522	13,305	4,009	4,711	3,041	1,385	43,973
II. Bricks, Pottery, Glass, etc. ..	19,955	9,649	2,251	3,858	2,169	567	38,449
III. Chemicals, Dyes, Explosives, Paints, Oils, Grease ..	75,788	55,164	5,035	8,771	13,510	2,928	161,196
IV. Industrial Metals, Machines, Conveyances ..	359,422	214,200	49,258	71,524	24,938	16,442	735,784
V. Precious Metals, Jewellery, Plate ..	3,271	3,163	321	522	279	26	7,582
VI. Textiles and Textile Goods (not Dress) ..	31,056	53,552	2,275	3,682	1,464	3,597	95,626
VII. Skins and Leather (not Clothing or Footwear) ..	7,303	6,201	1,694	1,733	812	78	17,821
VIII. Clothing (except Knitted) ..	45,743	50,081	6,537	4,745	2,773	865	110,744
IX. Food, Drink and Tobacco ..	82,097	70,903	46,842	16,013	11,348	7,359	234,562
X. Sawmills, Joinery, Boxes, etc., Wood Turning and Carving ..	31,566	22,648	13,716	7,057	7,692	5,465	88,144
XI. Furniture of Wood, Bedding, etc. ..	12,849	9,570	3,359	2,508	1,502	475	30,263
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	53,979	45,860	9,572	6,925	4,427	10,920	131,683
XIII. Rubber ..	11,379	15,540	3,026	2,156	422	282	32,805
XIV. Musical Instruments ..	1,594	359	54	33	37	..	2,077
XV. Miscellaneous Products ..	17,731	16,904	629	1,259	518	189	37,230
Total, Classes I. to XV.	771,255	587,099	148,578	135,497	74,932	50,578	1,767,939
XVI. Heat, Light and Power ..	34,060	21,849	6,887	4,313	3,830	3,723	74,662
Grand Total. ..	805,315	608,948	155,465	139,810	78,762	54,301	1,842,601

(a) See para. 1 of this section, p. 179.

(ii) *Total and Averages, 1938-39 and 1954-55 to 1958-59.* The value of production and the amount per person employed and per head of population are shown in the following table. For Australia as a whole, the value of production per head of population increased from £29.34 in 1938-39 to £185.14 in 1958-59. For value per person employed, the increase was not quite so pronounced (from £360 per head in 1938-39 to £1,693 in 1958-59).

FACTORIES: VALUE OF PRODUCTION.(a)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
VALUE. (£'000.)							
1938-39	90,266	65,996	19,302	13,678	8,776	5,399	203,417
1953-54	520,043	408,314	110,255	100,221	55,147	33,065	1,227,045
1954-55	583,127	452,223	120,061	111,028	60,956	38,114	1,365,509
1955-56	644,086	491,948	128,080	120,936	69,733	45,931	1,500,714
1956-57	706,799	528,031	138,400	126,766	73,442	48,682	1,622,120
1957-58	757,862	566,476	143,958	133,285	75,312	51,830	1,728,723
1958-59	805,315	608,948	155,465	139,810	78,762	54,301	1,842,601

PER PERSON EMPLOYED. (£.)

1938-39	395	327	357	315	378	391	360
1953-54	1,292	1,233	1,124	1,172	1,162	1,345	1,240
1954-55	1,389	1,305	1,197	1,240	1,236	1,497	1,324
1955-56	1,487	1,385	1,250	1,306	1,392	1,697	1,415
1956-57	1,620	1,487	1,343	1,378	1,507	1,759	1,525
1957-58	1,700	1,586	1,414	1,441	1,554	1,846	1,610
1958-59	1,792	1,678	1,484	1,485	1,627	1,910	1,693

PER HEAD OF POPULATION. (£.)

1938-39	33.00	35.25	19.14	22.98	18.80	22.72	29.34
1953-54	152.70	168.53	84.78	127.50	87.44	106.85	137.86
1954-55	168.56	181.75	90.59	137.50	93.93	121.78	150.22
1955-56	182.75	191.80	94.69	144.93	104.23	143.90	161.10
1956-57	196.99	200.00	100.26	147.17	107.29	149.27	170.12
1957-58	207.16	209.25	102.59	150.44	107.81	155.13	178.45
1958-59	216.14	219.38	109.02	153.93	110.58	159.11	185.14

(a) See para. 1 of this section, p. 179.

§ 9. Value of Land, Buildings, Plant and Machinery.

1. General.—The following statement shows the value of land and buildings and of plant and machinery used in connexion with manufacturing industries during the year 1958-59:—

FACTORIES: VALUE OF LAND, BUILDINGS, PLANT AND MACHINERY(a), 1958-59.
(£'000.)

Value of—	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Land and buildings	400,273	309,833	68,995	66,278	40,690	61,830	947,899
Plant and machinery	459,678	337,107	112,528	84,749	66,097	48,226	1,108,385
Total ..	859,951	646,940	181,523	151,027	106,787	110,056	2,056,284

(a) Includes estimated value of rented premises and plant.

The values recorded in this section are generally the values apportioned in the books of the individual firms after allowance has been made for depreciation, but they include estimates of the capital value of premises and plant rented. Consequently, the totals shown in the table do not represent the actual amount of capital invested in the items specified.

2. Value of Land and Buildings.—(i) *Total for Australia.* The following table shows, for Australia as a whole, the approximate value of land and buildings occupied in connexion with manufacturing industries for 1938-39 and 1954-55 to 1958-59:—

FACTORIES: VALUE OF LAND AND BUILDINGS(a), AUSTRALIA.
(£'000.)

Class of Industry.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
I. Treatment of Non-metalliferous Mine and Quarry Products ..	2,779	9,103	11,228	12,686	13,714	15,175
II. Bricks, Pottery, Glass, etc. ..	2,954	9,849	11,301	14,498	14,986	16,580
III. Chemicals, Dyes, Explosives, Paints, Oils, Grease ..	7,377	44,658	61,863	67,719	70,090	76,645
IV. Industrial Metals, Machines, Conveyances ..	34,841	184,934	218,667	252,837	300,343	336,282
V. Precious Metals, Jewellery, Plate ..	633	2,888	3,233	3,525	3,777	3,845
VI. Textiles and Textile Goods (not Dress) ..	6,000	29,651	31,931	37,010	40,199	46,671
VII. Skins and Leather (not Clothing or Footwear) ..	2,096	6,452	6,288	7,074	7,221	7,702
VIII. Clothing (except Knitted) ..	10,624	31,163	33,920	37,203	39,855	43,203
IX. Food, Drink and Tobacco ..	33,273	94,070	108,335	118,413	129,073	138,625
X. Sawmills, Joinery, Boxes, etc., Wood Turning and Carving ..	4,107	21,225	23,141	25,347	28,464	30,656
XI. Furniture of Wood, Bedding, etc. ..	2,533	8,981	9,915	11,223	12,992	14,677
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	10,639	34,156	40,256	44,912	52,854	61,059
XIII. Rubber ..	1,676	7,430	8,581	9,563	11,688	12,821
XIV. Musical Instruments ..	105	528	621	987	636	730
XV. Miscellaneous Products ..	1,433	8,299	9,946	11,491	12,922	14,688
<i>Total, Classes I. to XV. ..</i>	<i>121,070</i>	<i>493,387</i>	<i>579,226</i>	<i>654,488</i>	<i>738,814</i>	<i>819,359</i>
XVI. Heat, Light and Power ..	9,850	62,609	74,348	105,199	110,222	128,540
Grand Total	130,920	555,996	653,574	759,687	849,036	947,899

(a) Includes estimated value of rented premises.

(ii) *In Classes of Industry in States, 1958-59.* The following table gives particulars of the various classes of industry in each State:—

FACTORIES: VALUE OF LAND AND BUILDINGS(a), 1958-59.
(£'000.)

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
I. Treatment of Non-metalliferous Mine and Quarry Products ..	5,214	5,212	1,102	1,450	1,492	705	15,175
II. Bricks, Pottery, Glass, etc. ..	9,024	4,051	913	1,057	1,251	284	16,580
III. Chemicals, Dyes, Explosives, Paints, Oils, Grease ..	36,452	29,873	1,506	2,893	4,835	1,086	76,645
IV. Industrial Metals, Machines, Conveyances ..	161,700	106,642	18,121	27,494	12,659	9,666	336,282
V. Precious Metals, Jewellery, Plate ..	1,600	1,582	128	332	175	28	3,845
VI. Textiles and Textile Goods (not Dress) ..	15,157	26,671	886	1,819	662	1,476	46,671
VII. Skins and Leather (not Clothing or Footwear) ..	3,286	3,001	360	648	296	111	7,702
VIII. Clothing (except Knitted) ..	17,620	18,609	2,501	2,027	1,699	747	43,203
IX. Food, Drink and Tobacco ..	44,774	46,878	22,665	10,793	8,123	5,392	138,625
X. Sawmills, Joinery, Boxes, etc., Wood Turning and Carving ..	12,132	8,379	2,936	3,841	1,826	1,542	30,656
XI. Furniture of Wood, Bedding, etc. ..	6,015	4,818	1,632	1,147	799	266	14,677
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	26,365	19,696	4,273	3,230	1,794	5,701	61,059
XIII. Rubber ..	4,872	4,979	1,383	980	386	221	12,821
XIV. Musical Instruments ..	406	228	27	37	32	..	730
XV. Miscellaneous Products ..	7,047	6,378	340	458	350	115	14,688
<i>Total, Classes I. to XV. ..</i>	<i>351,664</i>	<i>286,997</i>	<i>58,773</i>	<i>58,206</i>	<i>36,379</i>	<i>27,340</i>	<i>819,359</i>
XVI. Heat, Light and Power ..	48,609	22,836	10,222	8,072	4,311	34,490	128,540
Grand Total	400,273	309,833	68,995	66,278	40,690	61,830	947,899

(a) Includes estimated value of rented premises.

(iii) *Totals in each State.* The following table shows the value of land and buildings in each State for the years 1938-39 and 1954-55 to 1958-59:—

FACTORIES: VALUE OF LAND AND BUILDINGS.(a)

(£'000.)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
1938-39	57,353	42,026	12,299	8,711	6,814	3,717	130,920
1954-55	221,519	186,324	46,187	42,133	30,230	29,603	555,996
1955-56	260,268	212,913	52,602	48,353	32,859	46,579	653,574
1956-57	303,981	249,716	58,654	55,343	35,520	56,473	759,687
1957-58	350,169	277,557	63,927	61,084	36,846	59,453	849,036
1958-59	400,273	309,833	68,995	66,278	40,690	61,830	947,899

(a) Includes estimated value of rented premises.

Prior to 1929-30, the increase in the value of land and buildings was uninterrupted, rising from £23 million in 1903 to £118 million in 1929-30, an increase of £95 million in 27 years. During the three years ended 1932-33, there was a decline of £12 million to £105.8 million, but since that year the value has risen annually and it stood at £947.9 million in 1958-59.

3. *Value of Plant and Machinery.*—(i) *Total for Australia, 1938-39 and 1954-55 to 1958-59.* The following table shows for Australia the approximate value of plant and machinery used in factories:—

FACTORIES: VALUE OF PLANT AND MACHINERY(a), AUSTRALIA.

(£'000.)

Class of Industry.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
I. Treatment of Non-metalliferous Mine and Quarry Products ..	7,028	20,625	23,512	27,351	30,623	35,099
II. Bricks, Pottery, Glass, etc. ..	3,145	11,000	12,319	13,138	13,443	14,564
III. Chemicals, Dyes, Explosives, Paints, Oils, Grease ..	6,754	97,508	125,016	127,732	137,520	153,820
IV. Industrial Metals, Machines, Conveyances ..	33,038	168,651	202,286	251,161	289,969	319,665
V. Precious Metals, Jewellery, Plate ..	197	1,094	1,219	1,374	1,388	1,348
VI. Textiles and Textile Goods (not Dress) ..	6,658	29,658	31,155	32,570	36,400	41,380
VII. Skins and Leather (not Clothing or Footwear) ..	973	4,153	4,225	4,332	4,240	4,348
VIII. Clothing (except Knitted) ..	2,557	13,452	14,340	15,699	15,621	16,407
IX. Food, Drink and Tobacco ..	32,101	101,700	115,904	124,406	131,708	138,940
X. Sawmills, Joinery, Boxes, etc., Wood Turning and Carving ..	3,907	21,827	23,626	25,045	27,043	29,121
XI. Furniture of Wood, Bedding, etc. ..	728	3,186	3,388	3,632	3,802	4,130
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	9,188	46,129	51,405	53,755	59,509	63,757
XIII. Rubber ..	1,368	6,843	8,971	8,626	10,234	10,333
XIV. Musical Instruments ..	12	444	509	682	429	426
XV. Miscellaneous Products ..	758	6,614	7,459	8,515	10,417	11,077
<i>Total, Classes I. to XV. ..</i>	<i>108,412</i>	<i>532,884</i>	<i>625,334</i>	<i>698,018</i>	<i>771,986</i>	<i>844,415</i>
XVI. Heat, Light and Power ..	35,250	165,408	172,502	219,019	240,749	263,970
Grand Total	143,662	698,292	797,835	917,037	1,012,735	1,108,385

(a) Includes estimated value of rented plant and machinery.

Except for the years 1930-31 to 1933-34, when decreases were recorded, there has been a continuous increase in the value of plant and machinery in factories in Australia. The increase in 1958-59 of £95.7 million over 1957-58 extended over practically all industrial classes. The greatest increase occurred in Class IV., Industrial Metals, Machines, Conveyances.

(ii) *Totals in each State.* The following table shows the value of plant and machinery in each State during the years 1938–39 and 1954–55 to 1958–59. During 1958–59, increases occurred in all States, New South Wales showing the largest increase, £43.8 million.

FACTORIES: VALUE OF PLANT AND MACHINERY.(a)

(£'000.)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
1938–39	62,693	38,627	18,095	9,750	8,095	6,402	143,662
1954–55	258,596	226,347	76,367	52,145	54,958	29,879	698,292
1955–56	298,913	252,590	85,777	63,596	56,534	40,425	797,835
1956–57	363,310	283,868	89,904	71,847	63,272	44,836	917,037
1957–58	415,838	302,263	104,598	79,336	63,840	46,860	1,012,735
1958–59	459,678	337,107	112,528	84,749	66,097	48,226	1,108,385

(a) Includes estimated value of rented plant and machinery.

(iii) *Value according to Class of Industry, 1958–59.* The following table shows the value of plant and machinery used in factories in each State during 1958–59 according to class of industry:—

FACTORIES: VALUE OF PLANT AND MACHINERY(a), 1958–59.

(£'000.)

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
I. Treatment of Non-metalliferous Mine and Quarry Products	17,194	8,315	3,099	3,700	2,037	754	35,099
II. Bricks, Pottery, Glass, etc. ..	8,131	3,286	947	920	1,095	185	14,564
III. Chemicals, Dyes, Explosives, Paints, Oils, Grease	61,686	58,002	2,492	5,611	23,646	2,383	153,820
IV. Industrial Metals, Machines, Conveyances	177,655	83,490	11,692	26,858	9,309	10,661	319,665
V. Precious Metals, Jewellery, Plate	586	540	40	128	46	8	1,348
VI. Textiles and Textile Goods (not Dress)	13,587	21,696	982	2,204	427	2,484	41,380
VII. Skins and Leather (not Clothing or Footwear)	1,748	1,489	376	507	199	29	4,348
VIII. Clothing (except Knitted) ..	5,899	7,501	1,177	988	597	245	16,407
IX. Food, Drink and Tobacco ..	38,643	39,848	39,428	9,671	6,241	5,109	138,940
X. Sawmills, Joinery, Boxes, etc., Wood Turning and Carving ..	8,905	6,684	5,042	3,632	2,405	2,453	29,121
XI. Furniture of Wood, Bedding, etc.	1,591	1,270	496	442	263	68	4,130
XII. Paper, Stationery, Printing, Bookbinding, etc.	21,682	22,065	6,381	3,250	1,710	8,669	63,757
XIII. Rubber	4,007	4,529	843	578	249	127	10,333
XIV. Musical Instruments	340	72	5	6	3	..	426
XV. Miscellaneous Products	5,285	5,064	174	398	119	37	11,077
<i>Total, Classes I. to XV.</i>	366,939	263,851	73,174	58,893	48,346	33,212	844,415
XVI. Heat, Light and Power	92,739	73,256	39,354	25,856	17,751	15,014	263,970
Grand Total	459,678	337,107	112,528	84,749	66,097	48,226	1,108,385

(a) Includes estimated value of rented plant and machinery.

4. *Depreciation of Land and Buildings and Plant and Machinery, 1958–59.*—The following table shows the allowance made for the depreciation of land and buildings and plant and machinery used in connexion with the manufacturing industries in each State as recorded by factory proprietors at the annual census of factory production:—

**FACTORIES: ALLOWANCE FOR DEPRECIATION OF LAND AND BUILDINGS
AND PLANT AND MACHINERY, 1958-59.**

(£'000.)

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
I. Treatment of Non-metalliferous Mine and Quarry Products	2,023	912	375	440	199	88	4,037
II. Bricks, Pottery, Glass, etc.	1,050	504	127	148	127	28	1,984
III. Chemicals, Dyes, Explosives, Paints, Oils, Grease	6,464	5,979	292	731	2,291	566	16,323
IV. Industrial Metals, Machines, Conveyances	18,201	8,480	1,285	3,561	915	994	33,436
V. Precious Metals, Jewellery, Plate	58	51	5	13	5	1	133
VI. Textiles and Textile Goods (not Dress)	1,381	2,725	108	166	58	305	4,743
VII. Skins and Leather (not Clothing or Footwear)	166	136	36	28	27	3	396
VIII. Clothing (except Knitted)	670	624	116	92	62	29	1,593
IX. Food, Drink and Tobacco	4,180	4,819	3,925	1,091	704	569	15,288
X. Sawmills, Joinery, Boxes, etc., Wood Turning and Carving	898	720	559	328	249	286	3,040
XI. Furniture of Wood, Bedding, etc.	170	116	60	46	28	7	427
XII. Paper, Stationery, Printing, Bookbinding, etc.	2,367	3,056	803	369	221	886	7,702
XIII. Rubber	1,159	1,044	166	153	42	21	2,585
XIV. Musical Instruments	45	6	1	1	..	..	53
XV. Miscellaneous Products	659	812	20	46	16	6	1,559
<i>Total, Classes I. to XV.</i>	<i>39,491</i>	<i>29,984</i>	<i>7,878</i>	<i>7,213</i>	<i>4,944</i>	<i>3,789</i>	<i>93,299</i>
XVI. Heat, Light and Power	8,444	3,223	2,180	940	1,033	633	16,453
Grand Total	47,935	33,207	10,058	8,153	5,977	4,422	109,752

5. Land and Buildings, Plant and Machinery—Values, Additions and Replacements, Depreciation, 1938-39 and 1954-55 to 1958-59.—The following table summarizes the recorded totals for Australia in this section and also includes particulars of additions and replacements:—

**FACTORIES: VALUE OF LAND AND BUILDINGS, PLANT AND MACHINERY,
AUSTRALIA.**

(£'000.)

Year.	Book Values as at 30th June.(a)		Additions and Replacements during year.(a)		Depreciation allowed during year.	
	Land and Buildings.	Plant and Machinery.	Land and Buildings.	Plant and Machinery.	Land and Buildings.	Plant and Machinery.
1938-39..	130,920	143,662	5,578	17,781	1,911	8,736
1954-55..	555,996	698,292	58,311	170,762	6,568	49,916
1955-56..	653,574	797,835	82,808	156,535	8,209	60,508
1956-57..	759,687	917,037	87,441	195,670	9,514	71,119
1957-58..	849,036	1,012,735	75,762	176,903	10,899	85,818
1958-59..	947,899	1,108,385	94,823	197,566	13,000	96,752

(a) Includes estimated value of rented premises, plant and machinery.

§ 10. Principal Factory Products.

The factory production of certain commodities is shown in the monthly and quarterly publications of this Bureau and in the bulletin *Secondary Industries*.

The following table shows the total recorded production of some of the principal articles manufactured in Australia during the years ended 30th June, 1957 to 1959. A more complete list, together with values, where available, is published in the bulletin *Secondary Industries*.

QUANTITY OF PRINCIPAL ARTICLES PRODUCED IN FACTORIES: AUSTRALIA.

Article.	Unit of Quantity.	1956-57.	1957-58.	1958-59.
Acid—				
Nitric	Ton	15,520	14,837	15,331
Sulphuric	"	878,763	991,624	986,193
Aerated and Carbonated Waters ..	'000 gals.	61,242	69,165	69,285
Asbestos Cement Building Sheets ..	'000 sq. yds.	25,444	26,026	26,846
Bacon and Ham	'000 lb.	71,156	71,671	74,815
Bags, Leather, Fibre, etc.—				
Handbags—				
Leather	No.	748,571	873,004	792,973
Plastic	"	922,068	1,042,201	1,401,958
Other	"	103,308	103,336	94,964
School Bags	"	80,961	139,326	128,633
Suitcases (a)	"	1,203,479	1,276,218	1,319,850
Trunks	"	1,258	1,288	3,080
All other (b)	"	326,685	693,011	1,068,481
Baking Powder	lb.	650,272	585,096	585,156
Bath Heaters—				
Electric	No.	14,698	12,415	12,533
Gas	"	25,243	26,234	23,190
Solid Fuel	"	33,691	31,581	30,185
Barbing Suits	Doz.	165,758	180,941	156,082
Baths, C.I.P.E.	No.	88,959	88,206	87,954
Batteries, Wet Cell Type—				
Auto (S.L.I.). 6 Volts	No.	Not collected in this dissection	634,672	648,246
12 Volts	"		618,139	664,172
Radio, etc.	No. of 2 Volt Cells		235,701	233,560
Traction	"		29,591	31,068
Other	"		15,483	27,899
Beer (excluding Waste Beer)	'000 gals.	220,728	226,449	223,597
Biscuits	'000 lb.	162,536	165,529	172,340
Blankets	'000	1,678	1,855	1,705
Bran (Wheaten)	Ton (2,000 lb.)	287,653	230,416	228,461
Brassieres	Doz.	423,441	477,600	494,541
Bricks, Clay	'000	805,069	877,905	940,198
Brooms	Gross	21,003	21,413	21,227
Brushes (c)	"	78,753	99,565	106,777
Butter	Ton	189,841	172,918	190,923
Candles	Cwt.	10,354	7,444	8,588
Cardigans, Sweaters, etc.	Doz.	1,149,192	1,256,668	1,175,782
Cement, Portland	Ton	2,172,518	2,291,043	2,481,036
Cheese	"	45,171	35,895	43,430
Cigarettes	'000 lb.	30,513	32,748	35,255
Cleansing and Scouring Powders—				
Soap based (including Sand Soap) ..	Cwt.	78,168	72,586	64,466
Other	"	101,184	127,127	136,241
Cloth—				
Cotton	'000 sq. yds.	46,564	44,261	43,221
Woollen and Worsted (d)	"	32,782	31,719	27,265
Coke—				
Metallurgical	Ton	2,234,458	2,295,737	2,210,621
Other	"	954,756	831,615	815,464
Confectionery—				
Chocolate	'000 lb.	68,810	63,796	66,305
Other	"	87,395	88,881	92,457
Coppers—				
Electric	No.	21,890	20,943	20,717
Gas	"	24,170	22,072	21,834
Inserts (all types)	"	50,653	40,649	43,393
Cordials and Syrups	'000 gals.	4,623	4,593	4,561
Corsets and Corselets	Doz.	145,414	177,652	174,619
Cosmetic Creams and Lotions—				
Face Creams	Cwt.	4,488	4,438	4,717
Hand Creams and Lotions	"	8,939	8,473	9,164
Other Skin Creams and Lotions ..	"	6,865	6,817	7,389

(a) Includes kitbags, metal and bristle brushes.

(b) Excludes canvas waterbags.
(d) Includes mixtures.

(c) Excludes tooth and industrial

QUANTITY OF PRINCIPAL ARTICLES PRODUCED IN FACTORIES:
AUSTRALIA—continued.

Article.	Unit of Quantity.	1956-57.	1957-58.	1958-59.
Custard Powder	'000 lb.	5,647	5,395	5,472
Cycles, Assembled	No.	74,734	77,040	69,608
Dynamos—				
Alternators	No.	389	443	330
Generators	"	6,585	5,704	4,678
Electricity	Mill. kWh	18,289	19,796	21,199
Engines—				
Diesel, other than Marine	No.	2,642	2,556	1,670
Petrol—				
Marine	"	1,780	3,130	4,388
Other (a)	"	180,509	186,325	290,229
Essences, Flavouring—				
Culinary	Gal.	120,714	119,264	120,686
Industrial	"	345,999	335,055	347,452
Face Powder	Cwt.	2,779	2,726	2,243
Fans, Electric	No.	139,819	75,193	118,729
Fats, Edible—				
Dripping	Cwt.	440,292	358,029	517,313
Other	"	392,169	436,053	529,919
Fibrous Plaster Sheets	'000 sq. yds.	16,257	17,496	18,341
Fish, Tinned (including Fish Loaf)	'000 lb.	8,268	7,856	7,782
Floorboards—				
Australian Timber	'000 super. ft.	124,656	129,737	139,163
Imported Timber	"	2,657	3,441	2,691
Flour, Self-raising	Cwt.	1,084,974	1,067,819	1,031,463
Flour, Wheaten (b)	Ton (2,000 lb.)	1,662,977	1,373,457	1,363,868
Footwear (Not Rubber)—				
Boots, Shoes and Sandals	'000 pairs	20,938	21,395	24,055
Slippers	"	8,214	9,153	8,535
Fruit Juices, Natural	'000 gals.	3,298	3,670	5,073
Gas	Mill. cubic ft.	46,653	47,655	48,567
Gloves—				
Dress—				
Leather	Doz. pairs.	4,111	3,020	1,692
Other	"	70,654	77,104	52,816
Work, all types	"	276,707	290,384	310,007
Golf Clubs	Doz.	12,443	13,365	14,832
Handkerchiefs—				
Men's	"	1,118,023	1,204,828	1,363,165
Women's	"	1,489,780	1,569,810	1,634,059
Hats and Caps (excluding Berets)(c)	"	485,935	510,057	522,086
Hose, Rubber, Garden	'000 lin. ft.	3,755	2,736	2,514
Other	"	9,654	10,007	10,680
Plastic, Garden	"	27,585	32,565	24,125
Ice	Ton	485,511	462,569	381,691
Ice Cream	'000 gals.	15,647	16,519	16,002
Infants' and Invalid's Foods (d)	'000 lb.	30,390	31,308	31,661
Iron and Steel—				
Pig Iron	'000 tons.	2,098	2,284	2,294
Steel Ingots	"	2,774	3,038	3,204
Blooms and Billets	"	2,288	2,492	2,814
Irons, Electric (Hand, Domestic)	No.	354,099	320,013	305,899
Jams	'000 lb.	92,208	107,773	78,234
Jelly Crystals	"	12,332	13,887	12,756
Lacquer, Clear and Colours	Gal.	1,451,292	1,559,372	1,597,532
Lard	Cwt.	42,762	51,795	39,122
Lawn Mowers—				
Electric	No.	1,494	2,781	1,038
Petrol	"	161,256	147,253	248,967
Hand	"	48,713	31,300	22,015
Leather—				
Dressed from Hides, Sold by Measurement	'000 sq. ft.	56,611	60,380	64,008
Sold by Weight	'000 lb.	162	185	218
Dressed from Skins	'000 sq. ft.	20,820	20,304	20,166
Harness, Skirt, Belting, etc.	'000 lb.	2,553	2,205	1,979
Sole	"	30,583	29,085	26,601
Upholstery	'000 sq.ft.	1,434	900	960
Lime, Agricultural	Ton	120,298	125,290	134,398
Hydrated	"	52,843	53,025	55,419
Quick	"	109,667	116,019	106,980

(a) Excludes motor car, motor cycle, tractor and aero engines. (b) Includes wheatmeal for baking and sharps. (c) Including hoods and capelines. (d) Includes malted milk and milk sugar (lactose).

QUANTITY OF PRINCIPAL ARTICLES PRODUCED IN FACTORIES:
AUSTRALIA—*continued.*

Article.	Unit of Quantity.	1956-57.	1957-58.	1958-59.
Linseed Oil, extracted from Local Crushing from treatment of Unrefined	'000 gals.	1,645	889	859
Lubricating Oil	Ton	2,326 49,755	2,635 66,669	2,471 74,046
Malt, Barley	'000 bus.	7,895	8,197	8,108
Margarine—				
Table	'000 lb.	38,632	36,033	36,000
Other	"	44,576	47,017	53,034
Mattresses, Wire	No.	298,212	330,538	350,900
Inner Spring	"	507,844	568,900	581,002
Soft Filled, etc.	"	337,017	300,717	290,615
Meat, Tinned	'000 lb.	150,533	178,672	165,648
Milk—Condensed, Concentrated and				
Evaporated—				
Full Cream—Sweetened	'000 lb.	89,554	83,681	70,843
Unsweetened	"	64,810	63,429	66,856
Skim and/or Buttermilk	"	10,598	16,294	11,072
Milk Powder—				
Full Cream	Ton	17,864	18,073	19,183
Skim	"	30,567	24,580	34,128
Buttermilk and Whey	"	5,552	5,668	6,024
Mops, Floor	Gross	11,929	12,558	12,580
Motor Bodies made	No.	120,781	160,675	169,478
Motor Bodies Assembled	"	77,548	81,630	77,835
Motor Spirit (including Benzol)	'000 gals.	833,927	945,724	971,806
Motors, Electric	No.	954,318	1,127,482	1,314,089
Nails	Ton	26,340	24,191	23,815
Neckties	Doz.	532,868	489,213	468,738
Newsprint	Ton	79,600	81,085	83,071
Oatmeal (including Rolled Oats)	Cwt.	402,782	275,268	289,026
Paint, Oil (including Enamels)	'000 gals.	10,873	11,090	11,415
Water (including Kalsomine)	'000 lb.	25,920	(a) 3,916	(a) 3,295
Peanut Butter and Paste	"	4,346	5,433	5,461
Perambulators	No.	149,596	156,657	149,923
Pickles	'000 pints	6,469	5,503	5,210
Pigments, Tinting Colours ground in oil	Gal.	(b) 27,118	30,188	30,188
Zinc Oxide	Cwt.	162,953	158,409	128,714
White Lead	"	393,215	376,585	895,589
Other, including Dry Colours	"	194,365	212,637	236,204
Plywood, $\frac{1}{8}$ inch basis	'000 sq. ft.	360,285	291,308	291,500
Pollard	Ton (2,000 lb.)			
Preserves—				
Fruit Preserved (c)	'000 lb.	289,510	349,411	312,563
Vegetables Preserved	"	98,418	87,044	66,883
Pyjamas—				
Men's and Boys' (Suits only)	Doz.	283,055	328,018	365,118
Women's and Girls' (inc. Nightdresses)	"	399,995	460,441	492,289
Racquet Frames (all types)		16,147	17,616	16,063
Refrigerators, Commercial	No.	1,025	811	1,170
Domestic	"	195,517	195,925	219,760
Rice (Cleaned)	Cwt.	897,030	1,117,786	1,437,217
Ropes and Cables (excluding Wire)	"	131,746	130,413	133,352
Rugs	'000	163	177	133
Sauce	'000 pints	33,122	29,016	30,695
Sausage Casings	Cwt.	95,218	77,098	71,936
Semolina	"	140,536	130,179	131,304
Shirts (Men's and Boys')	Doz.	1,425,312	1,530,310	1,614,502
Sink Heaters	No.	23,635	19,780	19,911
Soap and Detergents—				
Soap, Personal Toilet	Cwt.	320,846	372,680	397,756
Household	"	716,568	769,680	695,445
Industrial (incl. Wool Scouring) (d)	"	194,476	169,679	155,408
Extracts and Powders, Household	"	791,267	804,713	710,463
Industrial	"	75,694	85,246	90,636
Detergents, Personal Toilet	"	8,763	9,048	10,743
Household	"	114,510	146,847	164,214
Industrial	"	34,460	35,797	47,017
Extracts and Powders—				
Household	"	78,089	183,218	273,977
Industrial	"	45,558	48,846	50,898

(a) Water paint in powder form only, including Kalsomine. Excludes production of emulsion types which was 1,801,000 gallons in 1957-58 and 2,032,000 gallons in 1958-59. (b) Not recorded.
(c) Includes canned apple, all types. (d) Includes industrial flakes and chips.

QUANTITY OF PRINCIPAL ARTICLES PRODUCED IN FACTORIES:
AUSTRALIA—continued.

Article.	Unit of Quantity.	1956-57.	1957-58.	1958-59.
Socks and Stockings—				
Men's and Youths'	'000 doz. pairs	1,454	1,472	1,311
Women's and Maids'	"	2,570	2,218	2,458
Infants' and Babywear (including Anklets)	"	1,191	1,125	1,068
Soup, Tinned	'000 pints	44,538	27,346	31,480
Dry-Mix	'000 lb.	4,532	3,606	4,329
Spades and Shovels	Doz.	33,255	23,796	39,787
Starch, Edible	Cwt.	468,308	443,894	407,245
Inedible	"	124,895	140,891	165,939
Steel, Structural, Fabricated	Ton	240,491	226,653	256,904
Stoves, Ovens and Ranges—				
Domestic Cooking—				
Electric (a)	No.	99,525	92,413	100,224
Gas	"	54,966	56,300	67,919
Solid Fuel	"	46,005	43,229	39,453
Sugar, Raw (94 net titre)	Ton	1,207,797	1,293,125	1,412,286
Refined	"	480,393	493,093	518,921
Sulphate of Ammonia	"	110,898	118,732	117,489
Superphosphate	"	1,975,015	2,219,592	2,124,087
Talcum Powder	Cwt.	35,084	36,708	37,593
Tallow—				
Edible	"	357,033	360,650	547,885
Inedible	"	1,655,807	1,740,356	2,256,272
Television Sets	No.	121,232	282,430	316,412
Tiles, Roofing—				
Cement	'000	44,595	49,468	52,260
Terracotta	"	57,673	58,935	59,232
Timber—				
From Native Logs—				
Hardwood	'000 super. ft.	1,151,429	1,127,150	1,158,799
Softwood	"	267,431	264,027	301,175
From Imported Logs—				
Hardwood	"	26,853	28,534	36,037
Softwood	"	174,531	167,984	188,033
Toasters, Electric (Domestic)	No.	18,917	18,192	17,087
Tobacco	'000 lb.	1,508,439	1,407,645	1,468,223
Tomato Juice	Gal.	740,344	807,227	1,257,089
Towels	Doz.			
Transformers, Chokes and Ballasts—				
For distribution of Power and Light, etc.	No.		51,333	72,541
For Fluorescent Lights and Neon Signs ..	"		1,306,429	1,458,976
For Radio Receivers, Record Players, etc.	"		250,052	240,610
For Television Receivers	"		241,900	298,742
For Welders	"		2,761	6,030
For other purposes	"		50,918	30,525
Twine (all types)	Cwt.	131,424	121,405	186,771
Tyres, Pneumatic—				
Motor Car and Motor Cycle	No.	2,711,087	3,003,646	3,205,931
Truck and Omnibus	"	536,384	502,725	567,286
Aero and Tractor	"	148,277	155,170	166,946
Umbrellas				
Underwear	'000 doz.	622,554	470,953	510,580
		4,688	4,740	4,914
Vacuum Cleaners (Domestic)	No.	83,910	81,257	86,287
Washing Machines, Household, Electric ..	No.	144,422	164,100	180,188
Weatherboards—				
Australian Timber	'000 super. ft.	22,937	23,886	26,279
Imported Timber	"	1,759	3,203	3,249
Wheatmeal (b)	Ton (2,000 lb.)	134,245	136,257	85,662
Wheelbarrows (Metal)	No.	66,999	67,309	77,378
Wireless and Television Cabinets	No.	429,647	557,842	546,461
Wireless Receiving Sets (incl. Radiograms)	"	366,282	380,753	378,316
Wool Scoured—				
For Sale	'000 lb.	43,632	36,866	40,285
For use in own works	"	47,625	47,663	47,463
On Commission	"	74,506	69,433	69,808
Wool Tops	"	42,661	39,253	40,991
Yarn (c)				
Cotton	"	42,707	44,645	43,443
Woolen	"	22,884	24,152	21,680
Worsted	"	24,818	21,455	18,894
Zinc Oxide (see Pigments)				

(a) Includes stovettes, cookers, etc.

(b) Excludes wheatmeal for baking included with flour.

(c) Including mixtures predominantly of the fibre mentioned.

§ 11. Individual Industries.

1. *General.*—Particulars on pages 164–91, §§ 2–9 afford a general view of the magnitude of industries in the sixteen groups adopted by the Conference of Statisticians in 1930. While it is not possible, within the limits of this publication, to give a detailed account of each industry, particular industries dealt with hereunder are of special importance because of the employment which they provide for labour and capital or for other features of special interest. Where there are only one or two establishments in a particular industry in the State or the Commonwealth, details of activities are not published, but are combined with some other factory group so that operations of individual concerns will not be disclosed.

The statistics in the following tables should be read in the light of the following definitions.

Factory. A factory is taken to be a manufacturing establishment in which four or more persons are employed or in which power, other than manual, is used.

Average Number of Persons Employed. All persons employed in the manufacturing activities of a factory are counted as factory employees, including working proprietors and “out-workers”. The average number of persons employed means, in general, the average number over the whole year and not the average over the period worked.

Value of Materials Used. This item includes the value, in the usual sense, of the materials used, stores used, containers, tools replaced, and materials used in repairs to plant.

Value of Fuel, etc., Used. This item includes also the cost of power and light used, of lubricants and of water.

Value of Output. The amounts given under this heading represent the selling value, at the factory, of goods made or processed during the year, including by-products, also the value of other work done.

Value of Production. The value of production is obtained by deducting “Value of materials used” and “Value of fuel used”, as defined above, from the “Value of output”.

Rated Horse-power of Engines Used. Statistics of power used in factories other than Central Electric Stations relate to the “rated horse-power” of engines ordinarily in use.

For more detailed definitions, see § 1, para. 6 of this chapter, page 160.

Details of some of the principal articles produced in factories in Australia during the years 1956–57 to 1958–59 are shown in the table on the preceding pages (§ 10).

2. *Portland Cement and Cement Goods.*—The manufacture of portland cement and cement goods is an important industry included in Class I. Particulars for the three industries under this general heading are shown for 1958–59 and for a series of years in the following table:—

PORTLAND CEMENT, ASBESTOS CEMENT SHEETS, ETC., AND OTHER CEMENT GOODS.

AUSTRALIA, 1958–59.

Items.	Portland Cement.	Asbestos Cement Sheets and Mouldings.	Other Cement Goods.	Total.
Number of factories	14	15	470	499
Number of persons employed	3,105	2,522	5,765	11,392
Salaries and wages paid £'000	3,274	2,681	5,693	11,648
Value of power, fuel, etc., used £'000	4,632	340	293	5,265
Value of materials used £'000	7,109	5,786	15,844	28,739
Value of production £'000	9,576	4,801	11,802	26,179
Total value of output £'000	21,317	10,927	27,939	60,183
Value of land and buildings £'000	3,423	1,370	3,515	8,308
Value of plant and machinery £'000	14,048	2,381	5,325	21,754
Horse-power of engines ordinarily in use h.p.	90,634	15,269	19,179	125,082

PORTLAND CEMENT, ASBESTOS CEMENT SHEETS, ETC., AND OTHER CEMENT GOODS—*continued.*

AUSTRALIA.

Items.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Number of factories ..	132	480	489	479	481	499
Number of persons employed ..	3,932	10,444	11,167	10,688	10,994	11,392
Salaries and wages paid ..	£'000 897	8,704	10,044	10,312	10,864	11,648
Value of power, fuel, etc., used ..	£'000 562	4,445	4,792	5,119	5,124	5,265
Value of materials used ..	£'000 1,542	19,418	21,999	23,226	25,579	28,739
Value of production ..	£'000 2,385	17,009	19,460	21,228	23,121	26,179
Total value of output ..	£'000 4,489	40,872	46,251	49,573	53,824	60,183
Value of land and buildings ..	£'000 1,350	4,726	6,128	6,994	7,407	8,308
Value of plant and machinery ..	£'000 2,516	13,208	15,542	18,454	19,823	21,754
Horse-power of engines ordinarily in use h.p.	39,617	95,870	108,715	105,805	106,905	125,082

3. Chemicals, Drugs and Medicines.—In 1945-46, the classification of factories was amended to provide for the separate tabulation of factories engaged in the production of Industrial and Heavy Chemicals and Acids and those engaged in producing Pharmaceutical and Toilet Preparations, which previously had been combined. Details for each of these industries are given in the next two tables for 1958-59 with comparable figures for previous years. However, it should be noted that, in order to avoid the publication of confidential information, particulars relating to Industrial and Heavy Chemicals include details for the Explosives industry.

INDUSTRIAL AND HEAVY CHEMICALS AND ACIDS (INCLUDING EXPLOSIVES).

1958-59.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories ..	162	91	20	14	13	2	302
Number of persons employed ..	7,453	6,840	350	912	(a)	(a)	15,813
Salaries and wages paid ..	£'000 8,594	7,151	318	951	(a)	(a)	17,240
Value of power, fuel, etc., used ..	£'000 2,643	1,212	100	575	(a)	(a)	4,616
Value of materials used ..	£'000 27,086	16,701	890	1,368	(a)	(a)	46,605
Value of production ..	£'000 23,575	14,675	776	2,940	(a)	(a)	42,512
Total value of output ..	£'000 53,304	32,588	1,766	4,883	(a)	(a)	93,733
Value of land and buildings ..	£'000 11,292	10,160	250	899	(a)	(a)	22,948
Value of plant and machinery ..	£'000 19,349	15,379	754	1,714	(a)	(a)	38,137
Horse-power of engines ordinarily in use h.p.	61,554	58,510	1,820	5,432	(a)	(a)	130,928

(a) Not available for publication; figures are included in the total for Australia.

AUSTRALIA.

Items.	1945-46.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Number of factories ..	165	248	258	270	281	302
Number of persons employed ..	10,228	13,032	14,107	14,509	15,085	15,813
Salaries and wages paid ..	£'000 3,450	11,833	13,574	14,684	15,875	17,240
Value of power, fuel, etc., used ..	£'000 618	3,043	3,462	3,845	4,208	4,616
Value of materials used ..	£'000 6,007	29,004	33,506	38,335	43,497	46,605
Value of production ..	£'000 6,627	25,095	29,895	34,513	35,930	42,512
Total value of output ..	£'000 13,252	57,142	66,863	76,693	83,635	93,733
Value of land and buildings ..	£'000 11,697	14,190	15,987	17,831	21,055	22,948
Value of plant and machinery ..	£'000 10,964	25,607	27,125	29,190	36,157	38,137
Horse-power of engines ordinarily in use h.p.	69,399	95,188	101,527	107,787	121,393	130,928

PHARMACEUTICAL AND TOILET PREPARATIONS.

1958-59.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories	128	57	7	13	4	1	210
Number of persons employed ..	3,503	2,748	126	525	(a)	(a)	6,976
Salaries and wages paid .. £'000	2,801	2,577	81	380	(a)	(a)	5,886
Value of power, fuel, etc., used .. £'000	115	601	1	34	(a)	(a)	754
Value of materials used .. £'000	10,876	6,591	324	1,671	(a)	(a)	19,575
Value of production .. £'000	15,045	6,786	184	959	(a)	(a)	23,130
Total value of output .. £'000	26,036	13,978	509	2,664	(a)	(a)	43,459
Value of land and buildings .. £'000	5,457	4,800	61	317	(a)	(a)	10,750
Value of plant and machinery .. £'000	1,511	2,811	33	138	(a)	(a)	4,519
Horse-power of engines ordinarily in use .. h.p.	5,428	9,504	91	1,541	(a)	(a)	16,702

(a) Not available for publication; figures are included in the total for Australia.

AUSTRALIA.

Items.	1945-46.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Number of factories	215	210	206	206	212	210
Number of persons employed ..	5,514	6,233	6,400	6,446	6,834	6,976
Salaries and wages paid .. £'000	1,699	4,255	4,635	5,020	5,531	5,886
Value of power, fuel, etc., used .. £'000	57	223	259	312	386	754
Value of materials used .. £'000	5,402	12,729	13,565	15,292	18,226	19,575
Value of production .. £'000	4,790	14,380	15,279	17,312	21,856	23,130
Total value of output .. £'000	10,249	27,332	29,103	32,916	40,468	43,459
Value of land and buildings .. £'000	1,534	6,022	6,830	7,828	9,677	10,750
Value of plant and machinery .. £'000	598	2,129	2,686	2,746	3,262	4,519
Horse-power of engines ordinarily in use .. h.p.	6,324	13,592	14,301	16,666	14,962	16,702

4. White Lead, Paints and Varnish.—The following table shows particulars of this industry for each State during 1958-59 and for Australia for a series of years:—

WHITE LEAD, PAINTS AND VARNISH.

1958-59.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories	84	52	19	16	13	4	188
Number of persons employed ..	2,892	1,664	306	518	(a)	(a)	5,532
Salaries and wages paid .. £'000	2,951	1,644	250	471	(a)	(a)	5,448
Value of power, fuel, etc., used .. £'000	260	109	16	28	(a)	(a)	419
Value of materials used .. £'000	13,343	7,633	1,554	2,184	(a)	(a)	25,448
Value of production .. £'000	7,082	3,045	1,133	1,572	(a)	(a)	13,184
Total value of output .. £'000	20,685	10,787	2,703	3,784	(a)	(a)	39,051
Value of land and buildings .. £'000	2,596	2,406	357	585	(a)	(a)	6,327
Value of plant and machinery .. £'000	1,355	1,839	173	213	(a)	(a)	3,696
Horse-power of engines ordinarily in use .. h.p.	13,088	7,271	1,536	2,201	(a)	(a)	25,093

(a) Not available for publication; figures are included in the total for Australia.

AUSTRALIA.

Items.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Number of factories	102	175	178	186	184	188
Number of persons employed ..	2,271	5,322	5,804	5,815	5,749	5,532
Salaries and wages paid .. £'000	535	4,636	5,300	5,508	5,608	5,448
Value of power, fuel, etc., used .. £'000	45	376	384	400	445	419
Value of materials used .. £'000	2,275	21,553	23,504	23,916	24,619	25,448
Value of production .. £'000	1,585	11,980	12,874	13,567	13,853	13,184
Total value of output .. £'000	3,905	33,909	36,762	37,883	38,917	39,051
Value of land and buildings .. £'000	761	5,089	5,563	6,680	6,397	6,327
Value of plant and machinery .. £'000	324	2,892	3,261	3,408	3,986	3,696
Horse-power of engines ordinarily in use .. h.p.	7,696	24,178	25,050	26,969	25,443	25,093

5. **Soap and Candle Factories.**—The following table shows particulars of factories in the Soap and Candle industry in each State for 1958–59 and for Australia for a series of years:—

SOAP AND CANDLES.

1958–59.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories	41	28	9	5	3	3	89
Number of persons employed ..	1,755	798	241	49	(a)	(a)	2,929
Salaries and wages paid .. £'000	1,709	820	197	33	(a)	(a)	2,822
Value of power, fuel, etc., used £'000	167	188	22	4	(a)	(a)	387
Value of materials used .. £'000	7,575	6,448	730	134	(a)	(a)	15,253
Value of production .. £'000	6,961	4,418	406	48	(a)	(a)	11,941
Total value of output .. £'000	14,703	11,054	1,158	186	(a)	(a)	27,581
Value of land and buildings £'000	681	1,080	168	30	(a)	(a)	2,039
Value of plant and machinery £'000	1,483	1,326	197	40	(a)	(a)	3,118
Horse-power of engines ordinarily in use h.p.	5,691	5,306	1,030	279	(a)	(a)	12,632

(a) Not available for publication; figures are included in the total for Australia.

AUSTRALIA.

Items.	1938–39.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
Number of factories	65	91	92	87	90	89
Number of persons employed ..	2,620	2,962	3,167	2,932	2,983	2,929
Salaries and wages paid .. £'000	501	2,589	2,858	2,704	2,830	2,822
Value of power, fuel, etc. used £'000	76	420	406	393	441	387
Value of materials used .. £'000	1,568	11,941	12,057	12,437	14,446	15,253
Value of production .. £'000	1,886	7,425	8,147	9,150	10,525	11,941
Total value of output .. £'000	3,530	19,786	20,610	21,980	25,412	27,581
Value of land and buildings £'000	666	1,619	1,743	1,784	1,871	2,039
Value of plant and machinery £'000	577	2,653	3,001	3,150	2,973	3,118
Horse-power of engines ordinarily in use h.p.	5,267	8,676	10,711	10,922	11,296	12,632
Materials used—						
Tallow cwt.	535,511	1,151,146	1,162,578	1,152,865	1,219,538	1,161,856
Alkali for Soap (a) cwt.	194,869	421,401	390,757	366,796	386,712	384,680
Coconut oil—refined and unrefined .. cwt.	138,954	93,498	83,346	80,395	94,952	92,719
Articles produced—						
Soap (excl. Sand Soap)	908,797	1,263,226	1,269,648	1,231,890	1,311,796	1,248,609
Cleansers and Scourers (inc. Sand Soap) cwt.	123,702	115,350	105,046	78,186	72,586	64,466
Soap Extracts and Powders	191,232	1,007,494	910,443	866,961	875,959	801,099
Candles made	28,649	10,369	10,011	10,354	7,444	8,588

(a) Includes Soda Ash.

NOTE.—Preliminary figures of production in 1959–60 were Soap, 1,259,000 cwt.; Cleansers and Scourers, 66,000 cwt.; and Soap Extracts and Powders, 827,000 cwt.

6. **Chemical Fertilizers.**—The following table shows particulars of the factories engaged in the manufacture of chemical fertilizers in each State during 1958–59 and for Australia for a series of years. Details of the consumption, imports and exports of fertilizers will be found in Chapter XXII.—Agricultural Production.

CHEMICAL FERTILIZERS.

1958–59.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories	12	7	8	8	6	7	48
Number of persons employed ..	819	1,551	(a)	851	975	(a)	4,959
Salaries and wages paid .. £'000	878	1,715	(a)	845	956	(a)	5,207
Value of power, fuel, etc., used £'000	255	284	(a)	86	151	(a)	995
Value of materials used .. £'000	3,230	7,643	(a)	5,316	5,394	(a)	25,756
Value of production .. £'000	1,822	3,554	(a)	1,827	1,972	(a)	11,440
Total value of output .. £'000	5,307	11,481	(a)	7,229	7,517	(a)	38,191
Value of land and buildings £'000	3,124	814	(a)	740	1,896	(a)	7,633
Value of plant and machinery £'000	2,744	1,665	(a)	3,109	1,906	(a)	10,808
Horse-power of engines ordinarily in use h.p.	13,853	14,218	(a)	9,928	8,819	(a)	57,587

(a) Not available for publication; figures are included in the total for Australia.

CHEMICAL FERTILIZERS—continued.

AUSTRALIA.

Items.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Number of factories	36	53	54	52	49	48
Number of persons employed ..	2,540	4,735	4,911	5,074	5,050	4,959
Salaries and wages paid .. £'000	601	4,372	4,809	5,069	5,309	5,207
Value of power, fuel, etc., used .. £'000	114	852	939	1,160	950	995
Value of materials used .. £'000	3,231	21,519	24,098	25,479	28,862	25,756
Value of production .. £'000	1,600	8,794	10,267	10,158	12,175	11,440
Total value of output .. £'000	4,945	31,165	35,304	36,797	41,987	38,191
Value of land and buildings .. £'000	1,449	6,512	7,033	7,341	7,583	7,633
Value of plant and machinery .. £'000	2,353	9,270	11,645	11,404	10,835	10,808
Horse-power of engines ordinarily in use .. h.p.	18,165	47,595	58,044	59,457	58,212	57,587

7. **Iron and Steel Works and Engineering.**—(i) *General.* In 1945-46, the classification of factories was amended to provide for the tabulation in four separate groups of those industries previously included under Iron and Steel, and Engineering. The first group (Smelting, Converting, Refining and Rolling of Iron and Steel) covers blast furnaces, steel works and rolling mills. The second group, Foundries (Ferrous), covers those engaged in the founding of iron and steel. The third group (Plant, Equipment and Machinery including Machine Tools) covers those industries engaged in the production of boilers, engines, machines and machinery, machine tools, structural steel fabrications, steel furniture, etc. The fourth group (Other Engineering) includes jobbing and general engineers, not elsewhere included. Detailed statistics for the four groups mentioned are shown in the following tables.

(ii) *Smelting, Converting, Refining and Rolling of Iron and Steel.* In the following table, particulars are shown for each State for 1958-59 and for Australia in selected years for the group Smelting, Converting, Refining and Rolling of Iron and Steel:—

SMELTING, CONVERTING, REFINING AND ROLLING OF IRON AND STEEL.

1958-59.

Items.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aust.
Number of factories	17	10	..	5	2	..	34
Number of persons employed ..	28,065	1,324	..	(a)	(a)	..	29,982
Salaries and wages paid .. £'000	32,236	1,393	..	(a)	(a)	..	34,220
Value of power, fuel, etc., used .. £'000	20,885	348	..	(a)	(a)	..	23,539
Value of materials used .. £'000	150,054	1,523	..	(a)	(a)	..	153,563
Value of production .. £'000	73,550	1,869	..	(a)	(a)	..	78,154
Total value of output .. £'000	244,489	3,740	..	(a)	(a)	..	255,256
Value of land and buildings .. £'000	10,614	444	..	(a)	(a)	..	11,400
Value of plant and machinery .. £'000	78,600	651	..	(a)	(a)	..	82,451
Horse-power of engines ordinarily in use .. h.p.	608,749	8,136	..	(a)	(a)	..	633,180

AUSTRALIA.

Items.	1945-46.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Number of factories	27	33	(b) 28	34	35	34
Number of persons employed ..	10,413	17,842	20,805	26,078	28,526	29,982
Salaries and wages paid .. £'000	4,164	18,238	22,037	28,636	31,469	34,220
Value of power, fuel, etc., used .. £'000	2,777	15,670	17,864	20,538	22,150	23,539
Value of materials used .. £'000	19,134	94,928	101,416	136,483	137,674	153,563
Value of production .. £'000	7,393	34,381	44,269	66,385	70,379	78,154
Total value of output .. £'000	29,304	144,979	163,549	223,406	230,203	255,256
Value of land and buildings .. £'000	2,197	6,615	6,457	9,054	9,953	11,400
Value of plant and machinery .. £'000	5,669	26,394	29,154	61,608	71,048	82,451
Horse-power of engines ordinarily in use .. h.p.	198,317	339,135	363,751	448,541	536,530	633,180

(a) Not available for publication; figures are included in the total for Australia. (b) The reduction in the number of establishments is due to combined returns being furnished where formerly separate returns were submitted for Blast Furnaces, Steel Furnaces and Rolling Mills operated by the one establishment.

Particulars of the production of pig-iron and steel will be found on page 193 and in Chapter XXVII.—Mineral Industry.

(iii) *Foundries (Ferrous)*. Particulars covering those industries classified as founding of iron and steel are shown for each State for 1958-59 and for Australia in selected years in the following table:—

FOUNDRIES—FERROUS.

1958-59.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories	86	193	24	26	17	..	346
Number of persons employed ..	2,831	2,722	858	541	424	..	7,376
Salaries and wages paid .. £'000	2,880	2,726	797	518	372	..	7,293
Value of power, fuel, etc., used .. £'000	348	371	60	79	97	..	955
Value of materials used £'000	2,095	2,856	885	481	370	..	6,687
Value of production £'000	4,224	3,922	1,128	814	527	..	10,615
Total value of output £'000	6,667	7,149	2,073	1,374	994	..	18,257
Value of land and buildings .. £'000	1,462	1,531	415	220	284	..	3,912
Value of plant and machinery .. £'000	1,042	1,049	444	202	226	..	2,963
Horse-power of engines ordinarily in use h.p.	11,713	10,891	3,560	2,558	2,890	..	31,612

AUSTRALIA.

Items.	1945-46.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Number of factories	312	368	373	368	373	346
Number of persons employed ..	5,344	7,099	7,434	7,633	7,801	7,376
Salaries and wages paid £'000	1,612	6,116	6,706	7,060	7,548	7,293
Value of power, fuel, etc., used .. £'000	161	796	918	975	997	955
Value of materials used £'000	1,210	4,881	5,396	6,221	6,664	6,687
Value of production £'000	2,341	8,983	9,652	10,235	11,237	10,615
Total value of output £'000	3,712	14,660	15,966	17,431	18,898	18,257
Value of land and buildings £'000	988	2,623	3,564	3,899	4,244	3,912
Value of plant and machinery £'000	619	2,342	3,234	3,545	3,615	2,963
Horse-power of engines ordinarily in use h.p.	13,381	26,451	30,738	32,835	33,042	31,612

(iv) *Plant, Equipment and Machinery (including Machine Tools)*. The next table shows particulars for this group for each State during 1958-59 and for Australia in selected years:—

PLANT, EQUIPMENT AND MACHINERY (INCLUDING MACHINE TOOLS).

1958-59.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories	1,136	714	161	207	116	11	2,345
Number of persons employed ..	28,230	24,712	6,003	8,712	2,995	253	70,905
Salaries and wages paid £'000	29,265	25,059	5,077	8,098	2,633	239	70,371
Value of power, fuel, etc., used .. £'000	1,167	1,110	233	520	124	7	3,161
Value of materials used £'000	55,111	41,754	7,711	13,902	3,609	321	122,408
Value of production £'000	49,570	41,164	7,898	12,467	4,032	341	115,472
Total value of output £'000	105,848	84,028	15,842	26,889	7,765	669	241,041
Value of land and buildings £'000	21,301	19,000	2,540	4,526	2,274	286	49,927
Value of plant and machinery £'000	13,842	14,585	2,059	3,985	1,677	252	36,400
Horse-power of engines ordinarily in use h.p.	96,816	89,830	19,824	31,420	12,050	640	250,580

AUSTRALIA.

Items.	1945-46.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Number of factories	1,038	1,980	2,062	2,212	2,240	2,345
Number of persons employed ..	46,123	64,588	68,699	69,476	69,540	70,905
Salaries and wages paid £'000	14,259	54,561	61,872	65,272	67,000	70,371
Value of power, fuel, etc., used .. £'000	605	2,378	2,570	2,775	2,964	3,161
Value of materials used £'000	16,455	80,462	93,510	99,172	114,716	122,408
Value of production £'000	21,044	87,040	98,574	106,922	110,365	115,472
Total value of output £'000	38,104	169,880	194,654	208,869	228,045	241,041
Value of land and buildings £'000	7,227	28,687	34,019	39,692	45,592	49,927
Value of plant and machinery £'000	7,046	23,548	26,621	29,112	32,805	36,400
Horse-power of engines ordinarily in use h.p.	101,810	201,626	217,880	222,937	236,230	250,580

(v) *Other Engineering.* Details covering jobbing and general engineering works not elsewhere included are shown for each State for 1958–59 and for Australia in selected years in the following table:—

OTHER ENGINEERING.

1958–59.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories ..	804	815	173	181	154	93	2,220
Number of persons employed ..	6,901	8,557	1,831	3,670	894	1,614	23,467
Salaries and wages paid .. £'000	6,418	8,252	1,485	3,392	694	1,441	21,682
Value of power, fuel, etc., used £'000	259	308	44	106	34	55	806
Value of materials used .. £'000	7,781	8,798	2,149	4,652	889	1,790	26,059
Value of production .. £'000	10,417	13,923	2,394	4,849	1,165	2,081	34,829
Total value of output .. £'000	18,457	23,029	4,587	9,607	2,088	3,926	61,694
Value of land and buildings £'000	5,437	6,141	914	2,506	563	1,094	16,655
Value of plant and machinery £'000							
Horse-power of engines ordinarily in use .. h.p.	3,403	5,394	675	1,776	312	641	12,201
	22,190	26,626	5,010	12,330	3,845	6,108	76,109

AUSTRALIA.

Items.	1945–46.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
Number of factories ..	963	2,128	2,220	2,166	2,223	2,220
Number of persons employed ..	13,112	22,540	24,445	23,148	23,370	23,467
Salaries and wages paid .. £'000	3,634	17,491	20,477	20,037	20,768	21,682
Value of power, fuel, etc., used .. £'000	162	599	698	674	699	806
Value of materials used .. £'000	3,599	20,834	24,534	22,320	23,780	26,059
Value of production .. £'000	5,432	28,025	32,949	31,568	34,274	34,829
Total value of output .. £'000	9,193	49,458	58,181	54,562	58,753	61,694
Value of land and buildings .. £'000	2,369	11,289	13,205	13,801	15,485	16,655
Value of plant and machinery .. £'000	2,091	8,070	9,363	9,440	10,746	12,201
Horse-power of engines ordinarily in use h.p.	26,095	66,406	78,246	72,254	76,500	76,109

8. *Extracting and Refining of Non-ferrous Metals; Alloys.*—The following table shows particulars of establishments engaged in metal extraction and ore reduction including secondary recovery of metals, but excluding blast furnaces engaged in production of pig iron from iron ore, for each State during 1958–59 and for Australia for a series of years. It should be noted that as Ore Beneficiation and Concentration, formerly included as part of this section of Manufacturing Industry, was transferred to the Mining Industry in 1952–53 details for 1938–39 are not comparable with those for later years.

EXTRACTING AND REFINING OF NON-FERROUS METALS: ALLOYS.

1958–59.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust. (a)	Tas.	Aust.
Number of factories ..	32	23	4	2	4	3	68
Number of persons employed ..	1,355	324	596	(b)	11	(b)	7,269
Salaries and wages paid .. £'000	1,666	368	774	(b)	11	(b)	8,880
Value of power, fuel, etc., used £'000	608	58	1,061	(b)	4	(b)	4,724
Value of materials used .. £'000	13,444	3,064	18,497	(b)	49	(b)	61,060
Value of production .. £'000	3,406	922	2,249	(b)	34	(b)	18,129
Total value of output .. £'000	17,458	4,044	21,807	(b)	87	(b)	83,913
Value of land and buildings £'000	945	405	974	(b)	9	(b)	7,326
Value of plant and machinery £'000	2,514	244	1,364	(b)	35	(b)	15,764
Horse-power of engines ordinarily in use .. h.p.	8,672	1,129	8,443	(b)	261	(b)	76,680

AUSTRALIA.

Items.	1938–39. (c)	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
Number of factories ..	42	62	56	58	63	68
Number of persons employed ..	5,532	6,782	7,029	7,212	7,254	7,269
Salaries and wages paid .. £'000	1,613	6,432	7,434	8,720	8,667	8,880
Value of power, fuel, etc., used .. £'000	598	3,253	3,753	4,282	4,413	4,724
Value of materials used .. £'000	16,844	62,859	70,000	68,426	58,120	61,060
Value of production .. £'000	3,892	14,148	17,787	19,773	18,138	18,129
Total value of output .. £'000	21,334	80,260	91,540	92,481	80,671	83,913
Value of land and buildings .. £'000	1,177	3,044	6,155	6,566	6,907	7,326
Value of plant and machinery .. £'000	3,526	6,019	13,367	14,485	15,262	15,764
Horse-power of engines ordinarily in use h.p.	54,450	66,280	79,696	76,212	76,070	76,680

(a) In Western Australia the majority of the plants are worked at the mines and are therefore not included. (b) Not available for publication; figures are included in the total for Australia. (c) See text above table.

9. **Electrical Machinery, Cables and Apparatus.**—The following table shows particulars of this industry for each State during 1958–59 and for Australia for a series of years:—

ELECTRICAL MACHINERY, CABLES AND APPARATUS.

1958–59.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories ..	572	384	69	82	88	18	1,213
Number of persons employed ..	31,330	13,734	2,063	1,777	961	204	50,069
Salaries and wages paid .. £'000	30,025	12,969	1,591	1,469	755	170	46,979
Value of power, fuel, etc., used £'000	1,557	810	48	42	24	12	2,493
Value of materials used .. £'000	62,319	27,166	2,367	1,876	914	322	94,964
Value of production .. £'000	50,969	19,721	2,412	2,181	1,181	344	76,808
Total value of output .. £'000	114,845	47,697	4,827	4,099	2,119	678	174,265
Value of land and buildings £'000	19,184	10,960	1,083	898	648	185	32,958
Value of plant and machinery £'000	13,962	8,297	707	410	159	92	23,627
Horse-power of engines ordinarily in use .. h.p.	63,608	37,445	6,810	2,247	1,536	334	111,980

AUSTRALIA.

Items.	1938–39.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
Number of factories ..	360	1,064	1,099	1,153	1,152	1,213
Number of persons employed ..	10,666	42,007	43,841	44,594	46,394	50,069
Salaries and wages paid .. £'000	2,031	33,403	36,663	38,780	41,892	46,979
Value of power, fuel, etc., used .. £'000	105	1,651	1,808	1,964	2,155	2,493
Value of materials used .. £'000	3,195	69,962	75,129	76,256	84,212	94,964
Value of production .. £'000	3,655	54,637	57,036	63,198	69,589	76,808
Total value of output .. £'000	6,955	126,250	133,973	141,418	155,956	174,265
Value of land and buildings .. £'000	1,627	16,885	19,992	25,306	28,316	32,958
Value of plant and machinery .. £'000	897	11,915	13,854	16,409	20,046	23,627
Horse-power of engines ordinarily in use h.p.	12,043	81,058	83,279	91,991	98,679	111,980

10. **Railway and Tramway Workshops (Government and Local Authority).**—The railway and tramway workshops, which form an important part of Class IV., are owned chiefly by State Governments and Local Authorities. *Workshops (fourteen in 1958–59) controlled by non-public bodies are not included in the figures below.*

TRAMCARS AND RAILWAY ROLLING STOCK.(a)

1958–59.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories ..	40	22	29	14	27	7	139
Number of persons employed ..	14,284	7,391	7,780	4,053	3,738	747	37,993
Salaries and wages paid .. £'000	12,974	6,429	6,831	3,629	3,044	692	33,599
Value of power, fuel, etc., used £'000	420	222	155	135	118	30	1,080
Value of materials used .. £'000	5,924	5,479	3,078	3,213	1,607	262	19,563
Value of production .. £'000	15,884	8,684	8,017	4,463	3,619	890	41,557
Total value of output .. £'000	22,228	14,385	11,250	7,811	5,344	1,182	62,200
Value of land and buildings £'000	6,216	2,139	1,028	1,631	656	704	12,374
Value of plant and machinery £'000	10,072	1,429	1,460	2,218	1,030	338	16,547
Horse-power of engines ordinarily in use .. h.p.	44,528	22,881	18,278	14,502	11,701	3,272	115,162

AUSTRALIA.

Items.	1938–39.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
Number of factories ..	117	123	125	125	124	139
Number of persons employed ..	27,310	38,599	38,357	38,780	38,079	37,993
Salaries and wages paid .. £'000	6,721	30,777	33,159	33,670	32,946	33,599
Value of power, fuel, etc., used .. £'000	726	1,025	1,061	1,090	1,083	1,080
Value of materials used .. £'000	4,976	18,818	20,555	21,565	20,050	19,563
Value of production .. £'000	8,021	37,505	40,404	41,172	40,685	41,557
Total value of output .. £'000	13,223	57,348	62,020	63,827	61,818	62,200
Value of land and buildings .. £'000	6,737	10,524	11,076	11,494	11,775	12,374
Value of plant and machinery .. £'000	5,290	13,124	14,072	14,673	15,234	16,547
Horse-power of engines ordinarily in use h.p.	53,671	112,184	116,775	122,852	114,805	115,162

(a) Government and Local Authority only.

Two railway workshops in the Northern Territory are engaged in repairing rolling stock, etc., no new goods being manufactured. Particulars of these establishments are not included in any of the tables in this chapter.

11. **Motor Vehicles.**—The industries catering for the motor trade are included in Class IV., Industrial Metals, Machines and Conveyances. In the table below, a summary is given of the principal statistics for 1958–59 for each branch of industry associated with the motor trade of Australia.

MOTOR VEHICLES: CONSTRUCTION, ASSEMBLY, REPAIRS, ETC., AUSTRALIA.
1958-59.

Items.	Construction and Assembly.	Repairs.	Motor Bodies. (a)	Motor Accessories.	Total.
Number of factories	62	9,383	1,650	259	11,354
Number of persons employed ..	18,670	58,602	25,882	10,046	113,200
Salaries and wages paid .. £'000	19,549	43,850	24,110	9,369	97,078
Value of power, fuel, etc., used .. £'000	1,477	1,435	1,052	639	4,603
Value of materials used £'000	41,756	48,072	46,531	13,218	149,577
Value of production £'000	39,366	67,965	37,011	17,227	161,569
Total value of output £'000	82,599	117,472	84,594	31,084	315,749
Value of land and buildings .. £'000	17,108	60,055	15,431	7,140	99,734
Value of plant and machinery .. £'000	16,485	12,947	11,357	6,953	47,742
Horse-power of engines ordinarily in use h.p.	58,707	67,812	59,142	38,240	223,901

(a) Includes motor body repairing, panel beating, duco spraying, etc.

In the next table, similar details are shown on a State basis for 1958-59 and for Australia for selected years for these industries combined:—

MOTOR VEHICLES: CONSTRUCTION, ASSEMBLY, REPAIRS, ETC.
1958-59.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories	4,764	2,756	1,378	1,038	1,060	358	11,354
Number of persons employed ..	38,074	38,212	10,352	17,491	6,601	2,470	113,200
Salaries and wages paid .. £'000	32,031	34,762	7,323	16,021	5,080	1,861	97,078
Value of power, fuel, etc., used £'000	1,449	1,920	244	723	208	59	4,603
Value of materials used £'000	58,006	42,449	8,377	30,666	7,930	2,149	149,577
Value of production £'000	52,823	59,183	15,265	22,548	8,548	3,202	161,569
Total value of output £'000	112,278	103,552	23,886	53,937	16,686	5,410	315,749
Value of land and buildings £'000	37,928	36,325	7,049	10,430	5,541	2,461	99,734
Value of plant and machinery £'000	17,049	17,311	2,105	9,043	1,662	572	47,742
Horse-power of engines ordinarily in use h.p.	62,046	87,777	13,172	44,108	13,749	3,049	223,901

AUSTRALIA.

Items.	1945-46.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Number of factories	3,592	8,993	9,707	10,334	10,909	11,354
Number of persons employed ..	39,706	98,343	105,959	107,480	110,380	113,200
Salaries and wages paid .. £'000	10,582	73,073	84,082	86,282	91,886	97,078
Value of power, fuel, etc., used .. £'000	395	2,798	3,189	3,747	4,250	4,603
Value of materials used £'000	12,143	108,119	126,933	120,297	143,724	149,577
Value of production £'000	15,818	112,541	126,459	132,018	148,383	161,569
Total value of output £'000	28,356	223,458	256,581	256,062	296,357	315,749
Value of land and buildings .. £'000	9,878	55,451	66,235	78,817	89,561	99,734
Value of plant and machinery .. £'000	3,758	26,073	32,390	40,890	46,630	47,742
Horse-power of engines ordinarily in use h.p.	56,117	160,001	202,963	206,792	211,264	223,901

The table below shows the production and imports of motor bodies for 1938-39 and 1954-55 to 1959-60:—

PRODUCTION AND IMPORTS OF MOTOR BODIES(a): AUSTRALIA.

Items.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
Motor Bodies(a)—							(b)
Made No.	79,436	126,079	129,700	120,781	160,675	169,992	195,876
Assembled from Panels imported or made elsewhere No.	(c)	62,383	94,676	77,548	81,630	78,482	98,009
Imported (d) No.	532	37,924	19,041	7,062	(e)5,890	(e)6,104	(e)6,178

(a) Excludes sidecars. (b) Preliminary—subject to revision. (c) Not available.
(d) Includes bodies on complete vehicles imported. (e) Since 20th March, 1958, includes only those bodies imported as complete vehicles.

12. Agricultural Machines and Implements.—Owing to the extensive agricultural activities conducted in Australia and the demand for modern mechanized farm equipment, the manufacture of agricultural implements constitutes an important branch of Australian industry. The articles manufactured include a wide range of implements for tillage, seeding and planting, and the harvesting of crops. Other farm machinery made includes windmills, chaff-cutters and machinery used in the dairying industry.

The following table shows details of establishments classified as agricultural implement works in each State for 1958-59 and for Australia for a series of years:—

AGRICULTURAL MACHINES AND IMPLEMENTS.

1958-59.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories ..	149	91	49	34	35	..	358
Number of persons employed ..	1,797	5,761	1,353	1,517	299	..	10,727
Salaries and wages paid .. £'000	1,707	5,802	1,117	1,306	246	..	10,178
Value of power, fuel, etc., used .. £'000	85	422	60	97	10	..	674
Value of materials used .. £'000	1,989	8,892	1,234	1,775	272	..	14,162
Value of production .. £'000	2,527	8,992	1,570	1,967	370	..	15,426
Total value of output .. £'000	4,601	18,306	2,864	3,839	652	..	30,262
Value of land and buildings .. £'000	2,157	2,709	732	707	361	..	6,666
Value of plant and machinery .. £'000	766	2,525	510	511	106	..	4,418
Horse-power of engines ordinarily in use .. h.p.	6,379	20,399	5,739	5,495	1,189	..	39,201

AUSTRALIA.

Items.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Number of factories ..	161	308	324	348	370	358
Number of persons employed ..	6,563	12,182	11,938	10,387	10,449	10,727
Salaries and wages paid .. £'000	1,373	10,206	10,364	9,107	9,534	10,178
Value of power, fuel, etc., used .. £'000	82	695	670	581	638	674
Value of materials used .. £'000	1,485	13,572	13,082	11,084	13,438	14,162
Value of production .. £'000	1,836	14,558	14,650	14,038	15,599	15,426
Total value of output .. £'000	3,403	28,825	28,402	25,703	29,675	30,262
Value of land and buildings .. £'000	997	5,038	5,774	6,153	6,620	6,666
Value of plant and machinery .. £'000	911	4,282	4,673	4,800	4,537	4,418
Horse-power of engines ordinarily in use h.p.	13,346	39,858	39,878	40,254	39,652	39,201

13. *Wireless and Amplifying Apparatus.*—Prior to 1930-31, statistics of the manufacture of wireless and amplifying apparatus were grouped with those relating to other electrical apparatus, but the new factory classification adopted in that year provided for separate details to be shown for Wireless Apparatus. The industry is confined mainly to New South Wales, Victoria and South Australia. Technical advances and the requirements of the fighting forces led to considerable expansion in the industry during the 1939-45 War and this development has continued, with one or two exceptions, in each subsequent year. The introduction of television services in 1956 gave a further stimulus to the industry. The number of broadcast listeners' licences increased from a third of a million in 1930-31 to 2,283,000 at 30th June, 1960, and this increase reflects the advancement of the industry during that period. At 30th June, 1960, 955,000 television viewers' licences were in force.

WIRELESS AND AMPLIFYING APPARATUS: AUSTRALIA.

Items.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Number of factories ..	72	175	181	205	211	257
Number of persons employed ..	4,828	8,550	9,171	12,074	16,002	16,482
Salaries and wages paid .. £'000	754	6,398	7,051	9,145	13,264	14,264
Value of power, fuel, etc., used .. £'000	23	205	231	312	479	550
Value of materials used .. £'000	1,356	10,076	10,363	16,801	36,756	39,255
Value of production .. £'000	1,123	8,624	8,907	11,767	20,725	23,431
Total value of output .. £'000	2,502	18,905	19,501	28,880	57,960	63,236
Value of land and buildings .. £'000	558	2,300	3,428	4,752	6,374	7,897
Value of plant and machinery .. £'000	305	1,242	1,761	3,101	4,250	5,018
Horse-power of engines ordinarily in use h.p.	2,710	8,930	9,624	11,658	13,506	12,952
Wireless receiving sets made(a) .. No.	163,821	456,034	458,012	366,282	380,753	378,316
Television receiving sets made .. No.	..	..	2,636	121,232	282,430	316,412

(a) Including radiograms and car radios.

NOTE.—There were 406,000 wireless receiving sets (including radiograms) and 435,000 television receiving sets made in 1959-60.

14. **Cotton.**—(i) *General.* Cotton has been grown in Australia since 1860, but never on a very large scale. The average annual quantity of unginned cotton produced was 18 million lb. during the five years ended 1938–39, and slightly over 5 million lb. in the five years ended 1959–60. The growing of cotton, which is mainly confined to Queensland, is referred to in some detail in Chapter XXII.—Agricultural Production.

(ii) *Ginning.* The ginning and marketing of cotton is controlled by the Queensland Cotton Board. The Board operates ginneries and processes by-products. The production of raw cotton is insufficient for local factory requirements and is supplemented by imports from overseas, chiefly (in 1959–60) from India, Pakistan, Mexico and the United States of America.

(iii) *Spinning and Weaving.* The post war expansion in the spinning and weaving section of the cotton industry marks an important stage in its development. New factories have been established and Australia is now producing an extensive range of cotton goods, including duck and canvas from cotton or flax, denims, drill, etc., tyre cord and tyre cord fabric. The number of establishments engaged in cotton spinning and weaving in Australia and other particulars of the industry are shown in the following table for the years 1938–39 and 1954–55 to 1958–59.

COTTON SPINNING AND WEAVING: AUSTRALIA.

Items.	1938–39.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
Number of factories	33	96	97	91	97	97
Number of persons employed	3,589	9,582	9,598	9,754	9,879	9,770
Salaries and wages paid £'000	493	6,845	7,297	7,799	8,268	8,116
Value of power, fuel, etc., used £'000	50	706	703	890	958	988
Value of materials used £'000	1,357	18,505	18,571	19,485	24,025	19,403
Value of production £'000	979	11,343	12,227	14,202	15,622	14,751
Total value of output £'000	2,386	30,554	31,501	34,577	40,605	35,142
Value of land and buildings £'000	704	5,078	5,719	6,478	7,179	10,625
Value of plant and machinery £'000	736	4,355	4,637	5,312	6,702	9,949
Horse-power of engines ordinarily in use h.p.	9,128	34,356	34,637	34,568	35,880	38,779

15. **Wool Carding, Spinning and Weaving.**—The importance of this industry is emphasised by the fact that Australia is the world's chief source of wool and the development of the woollen industry since its establishment at an early period in Australian history is of singular interest. The production consists chiefly of woollen cloth and tweed, worsted cloth, rugs, blankets and yarn, all of which have acquired a reputation for purity and durability.

WOOL CARDING, SPINNING AND WEAVING.

1958–59.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories	40	87	4	3	3	4	141
Number of persons employed	5,907	10,995	920	581	(a)	(a)	20,809
Salaries and wages paid £'000	4,502	8,475	564	420	(a)	(a)	15,714
Value of power, fuel, etc., used £'000	390	798	44	41	(a)	(a)	1,445
Value of materials used £'000	8,985	20,295	1,840	785	(a)	(a)	37,252
Value of production £'000	7,787	14,047	735	753	(a)	(a)	26,458
Total value of output £'000	17,162	35,140	2,619	1,579	(a)	(a)	65,155
Value of land and buildings £'000	2,699	6,579	191	234	(a)	(a)	10,519
Value of plant and machinery £'000	3,618	6,386	347	262	(a)	(a)	12,082
Horse-power of engines ordinarily in use h.p.	16,597	43,084	3,735	1,618	(a)	(a)	72,301

(a) Not available for publication; figures are included in the total for Australia.

WOOL CARDING, SPINNING AND WEAVING—*continued.*

AUSTRALIA.

Items.	1938-39. (a)	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Number of factories	90	151	145	143	146	141
Number of persons employed	19,608	21,844	21,899	23,217	22,386	20,809
Salaries and wages paid £'000	2,888	13,945	14,409	16,340	16,380	15,714
Value of power, fuel, etc., used £'000	393	1,288	1,345	1,479	1,463	1,445
Value of materials used £'000	7,331	38,938	39,532	49,303	46,012	37,252
Value of production £'000	4,791	21,898	24,082	27,649	25,737	26,458
Total value of output £'000	12,515	62,124	64,959	78,431	73,212	65,155
Value of land and buildings £'000	2,380	7,369	7,713	9,019	9,364	10,519
Value of plant and machinery £'000	3,370	10,053	10,673	10,855	11,641	12,082
Horse-power of engines ordinarily in use h.p.	42,944	66,817	71,752	99,385	70,433	72,301
Articles produced—						
Woollen and worsted cloth(b)(c)'000 sq. yds.	31,768	31,067	30,279	32,782	31,719	27,265
Blankets and rugs(b) '000	1,279	1,673	1,799	1,841	2,032	1,838

(a) Includes Woollscouring Works in Victoria and Tasmania and Woollscouring Works and Fellmongeries in South Australia. (b) Includes production in other industries. (c) Includes mixtures.

NOTE.—Preliminary production figures for 1959-60 were: Woollen and Worsted Cloth, 30,170,000 square yards; Blankets and Rugs, 2,114,000.

16. **Hosiery and Other Knitted Goods.**—Details for each State for 1958-59 and for Australia for a series of years are shown in the following table:—

HOSIERY AND OTHER KNITTED GOODS.

1958-59.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories	200	438	4	9	8	4	663
Number of persons employed	6,607	15,285	588	127	(a)	(a)	22,851
Salaries and wages paid £'000	4,873	10,979	352	60	(a)	(a)	16,421
Value of power, fuel, etc., used £'000	218	549	11	3	(a)	(a)	787
Value of materials used £'000	11,134	21,820	1,321	115	(a)	(a)	34,701
Value of production £'000	9,292	20,846	826	94	(a)	(a)	31,325
Total value of output £'000	20,644	43,215	2,158	212	(a)	(a)	66,813
Value of land and buildings £'000	3,425	8,240	296	44	(a)	(a)	12,144
Value of plant and machinery £'000	2,464	6,529	250	34	(a)	(a)	9,353
Horse-power of engines ordinarily in use h.p.	6,568	15,518	709	198	(a)	(a)	23,290

(a) Not available for publication; figures are included in the total for Australia.

AUSTRALIA.

Items.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Number of factories	313	661	664	665	657	663
Number of persons employed	18,159	24,614	23,409	23,492	22,939	22,851
Salaries and wages paid £'000	2,332	15,117	15,117	16,052	16,124	16,421
Value of power, fuel, etc., used £'000	133	656	687	744	770	787
Value of materials used £'000	4,284	31,317	31,822	34,769	38,002	34,701
Value of production £'000	3,809	27,535	27,236	29,035	28,615	31,325
Total value of output £'000	8,226	59,508	59,745	64,548	67,387	66,813
Value of land and buildings £'000	1,962	8,643	9,339	9,939	10,910	12,144
Value of plant and machinery £'000	1,931	7,917	8,159	8,143	8,539	9,353
Horse-power of engines ordinarily in use h.p.	8,884	20,884	20,315	22,911	21,858	23,290

The following quantities of yarn were used in these establishments during 1958-59:—Worsted or woollen 7,806,279 lb.; mixtures predominantly woollen or worsted, 1,203,362 lb.; cotton, 11,874,913 lb.; mercerised cotton, 228,434 lb.; rayon, spun, 759,025 lb.; rayon filament, 3,193,719 lb.; silk, 2,142 lb.; polyamides (nylon, etc.), spun 1,208,670 lb.; filament 2,665,262 lb.; other, including mixtures, 1,517,334 lb. Production of garments and stockings is shown in § 10 (see p. 192).

17. Tanning, Currying and Leather Dressing.—(i) *Details of Industry.* In Class VII. the most important industry is tanning. Formerly the production of tanneries in Australia was confined to the coarser sorts of leathers, but there are now very few kinds which cannot be produced locally, and an export trade has been built up in some varieties.

TANNING, CURRYING AND LEATHER DRESSING.
1958-59.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories	60	36	13	8	5	1	123
Number of persons employed ..	1,779	1,911	565	205	(a)	(a)	4,617
Salaries and wages paid .. £'000	1,822	1,857	497	201	(a)	(a)	4,510
Value of power, fuel, etc., used .. £'000	187	219	45	25	(a)	(a)	490
Value of materials used .. £'000	5,429	4,578	1,628	584	(a)	(a)	12,635
Value of production .. £'000	2,748	2,696	922	351	(a)	(a)	6,919
Total value of output .. £'000	8,364	7,493	2,595	960	(a)	(a)	20,044
Value of land and buildings .. £'000	1,126	1,121	107	94	(a)	(a)	2,535
Value of plant and machinery .. £'000	881	856	252	160	(a)	(a)	2,223
Horse-power of engines ordinarily in use h.p.	12,561	11,404	3,683	1,925	(a)	(a)	30,749

(a) Not available for publication; figures are included in the total for Australia.

AUSTRALIA.

Items.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Number of factories	132	140	137	133	124	123
Number of persons employed ..	4,375	5,393	4,972	4,746	4,708	4,617
Salaries and wages paid £'000	920	4,518	4,468	4,383	4,413	4,510
Value of power, fuel etc., used .. £'000	88	408	415	446	470	490
Value of materials used £'000	2,983	10,675	11,180	11,738	11,938	12,635
Value of production £'000	1,522	6,743	6,082	5,736	6,214	6,919
Total value of output £'000	4,593	17,826	17,677	17,920	18,622	20,044
Value of land and buildings .. £'000	814	2,219	2,176	2,314	2,341	2,535
Value of plant and machinery .. £'000	524	2,231	2,231	2,264	2,154	2,223
Horse-power of engines ordinarily in use h.p.	12,345	31,708	31,590	30,799	32,378	30,749

(ii) *Materials Used and Articles Produced.* The quantities of materials used and leather produced in tanneries in each State in 1958-59 are shown in the following table:—

TANNERIES: MATERIALS USED AND PRODUCTION, 1958-59.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Materials used—							
Hides (cattle)—							
Yearling No.	(a)	(a)	(a)	(a)	(a)	(a)	147,996
Light Hides(b)	439,641	538,434	214,942	68,411	(a)	(a)	1,317,189
Heavy Hides(c)	345,873	421,746	170,579	61,506	(a)	(a)	1,054,112
Skins—							
Calf	652,931	243,239	(a)	(a)	..	..	918,159
Goat	(a)	(a)	..	..	..	..	523,392
Sheep including Pelts ..	2,196,240	334,116	(a)	(a)	..	..	3,160,080
Marsupial	38,433	..	66,377	(a)	(a)	..	111,127
Bark used—							
Wattle tons	1,596	3,994	751	(a)	..	(a)	6,757
Mallet and Other	(a)	337	..	..	(a)	..	656
Tanning extract (veg.) used ..	1,876	2,128	1,613	(a)	650	(a)	6,718
Articles produced—							
Leather made—							
Sole lb.	6,268,139	12,122,047	5,922,253	(a)	(a)	(a)	26,601,172
Harness, Belting, etc. ..	557,342	312,137	394,220	(a)	(a)	..	1,978,766
Upholstery sq. ft.	(a)	(a)	(a)	(a)	(a)	..	959,927
Dressed and Upper from Hides—							
Sold by Measurement—							
Patent sq. ft.	(a)	(a)	..	..	..	..	738,084
All Other	24,059,962	24,595,023	8,772,423	4,550,811	963,900	(a)	63,270,161
Sold by Weight (all kinds) lb.	(a)	(a)	..	..	..	(a)	218,118
Dressed from skins—							
Calf sq. ft.	4,338,318	2,004,051	(a)	(a)	..	..	6,526,843
Goat	(a)	(a)	..	..	..	..	2,114,228
Sheep	8,418,175	675,194	(a)	(a)	..	..	10,750,208
Marsupial	192,849	(a)	372,236	(a)	(a)	..	741,142

(a) Not available for publication; figures are included in the total for Australia.

(b) Up to

45 lb.

(c) Over 45 lb.

18. Tailoring and Ready-made Clothing.—Statistics showing the distribution of this industry among the States in 1958–59 and for Australia for a series of years are shown in the following table:—

TAILORING AND READY-MADE CLOTHING.
1958–59.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories	921	575	116	89	122	18	1,841
Number of persons employed ..	17,572	9,713	2,032	1,253	641	195	31,406
Salaries and wages paid .. £'000	10,936	6,536	975	696	288	102	19,533
Value of power, fuel, etc., used .. £'000	231	155	22	20	10	2	440
Value of materials used .. £'000	20,437	12,977	1,382	854	531	72	36,253
Value of production .. £'000	17,722	10,466	1,555	984	508	136	31,371
Total value of output .. £'000	38,390	23,398	2,959	1,858	1,049	210	68,064
Value of land and buildings .. £'000	6,124	4,134	533	644	421	92	11,948
Value of plant and machinery .. £'000	1,615	1,141	142	93	60	12	3,063
Horse-power of engines ordinarily in use .. h.p.	5,418	3,436	605	448	190	46	10,143

AUSTRALIA.

Items.	1938–39.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
Number of factories	1,177	1,985	1,952	1,944	1,914	1,841
Number of persons employed ..	26,499	33,384	32,587	31,920	31,457	31,406
Salaries and wages paid .. £'000	3,168	17,968	18,261	18,760	19,337	19,533
Value of power, fuel, etc., used .. £'000	72	390	393	416	422	440
Value of materials used .. £'000	4,947	34,237	35,941	35,883	36,680	36,253
Value of production .. £'000	4,812	28,031	28,940	29,811	31,117	31,371
Total value of output .. £'000	9,831	62,658	65,274	66,110	68,219	68,064
Value of land and buildings .. £'000	3,176	8,917	9,484	10,137	11,014	11,948
Value of plant and machinery .. £'000	356	2,663	2,746	2,861	2,913	3,063
Horse-power of engines ordinarily in use h.p.	2,607	9,198	9,017	9,133	9,671	10,143

19. Dressmaking and Millinery Establishments.—Particulars of dressmaking and millinery establishments in Australia for the years 1938–39 and 1954–55 to 1958–59 are shown in the following table:—

DRESSMAKING AND MILLINERY: AUSTRALIA.

Items.	1938–39.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
Number of factories	869	1,411	1,410	1,311	1,295	1,249
Number of persons employed ..	16,398	18,014	17,675	16,265	15,668	15,048
Salaries and wages paid .. £'000	1,653	8,975	9,063	8,783	8,859	8,599
Value of power, fuel, etc., used .. £'000	33	176	177	185	184	184
Value of materials used .. £'000	2,610	13,109	13,029	12,447	11,999	11,272
Value of production .. £'000	2,592	14,501	14,585	14,244	14,220	13,766
Total value of output .. £'000	5,235	27,786	27,791	26,876	26,403	25,222
Value of land and buildings .. £'000	2,052	5,256	5,788	5,966	6,693	6,937
Value of plant and machinery .. £'000	189	1,123	1,174	1,152	1,246	1,171
Horse-power of engines ordinarily in use h.p.	1,732	4,740	4,697	4,635	4,558	5,159

20. Shirts, Collars and Underclothing.—Particulars of this industry are shown below for each State for 1958–59 and for Australia for a series of years:—

SHIRTS, COLLARS AND UNDERCLOTHING.
1958–59.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories	162	169	23	24	14	2	394
Number of persons employed ..	4,880	6,621	1,091	421	(a)	(a)	13,589
Salaries and wages paid .. £'000	3,047	4,142	532	221	(a)	(a)	8,223
Value of power, fuel, etc., used .. £'000	58	70	9	5	(a)	(a)	147
Value of materials used .. £'000	7,261	7,845	661	268	(a)	(a)	16,410
Value of production .. £'000	4,698	7,108	745	302	(a)	(a)	13,271
Total value of output .. £'000	12,017	15,023	1,415	575	(a)	(a)	29,828
Value of land and buildings .. £'000	1,396	1,855	225	105	(a)	(a)	3,924
Value of plant and machinery .. £'000	533	636	75	22	(a)	(a)	1,317
Horse-power of engines ordinarily in use .. h.p.	1,900	2,799	272	163	(a)	(a)	5,357

(a) Not available for publication; figures are included in the total for Australia.

SHIRTS, COLLARS AND UNDERCLOTHING—continued.
AUSTRALIA.

Items.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58	1958-59.
Number of factories	283	392	404	397	384	394
Number of persons employed	11,081	12,745	12,686	13,157	13,038	13,589
Salaries and wages paid £'000	1,143	6,702	6,957	7,640	7,718	8,223
Value of power, fuel, etc., used £'000	23	106	119	129	134	147
Value of materials used £'000	2,651	15,020	16,112	16,285	16,595	16,410
Value of production £'000	1,761	10,927	11,328	12,051	11,945	13,271
Total value of output £'000	4,435	26,053	27,559	28,465	28,674	29,828
Value of land and buildings £'000	946	2,719	2,999	3,543	3,587	3,924
Value of plant and machinery £'000	231	1,053	1,146	1,229	1,233	1,317
Horse-power of engines ordinarily in use h.p.	1,874	4,468	4,881	5,177	5,064	5,357

21. **Boots and Shoes.**—(i) *Details of Industry.* Boot and shoe factories hold an important place in respect of both employment afforded and extent of output. The following tables refer to boot and shoe factories as distinct from those devoted to repairing, except in Tasmania, where it has been necessary to include details of boot and shoe repairing, in order to avoid disclosure of confidential information for that State. Factories engaged in the manufacture of sand shoes, goloshes and gum, etc., boots of rubber are not included here, being classified under Rubber Goods, *see* para. 38, page 223.

BOOTS AND SHOES.
1958-59.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.(a)	Aust.
Number of factories	172	215	27	15	12	41	482
Number of persons employed	6,369	11,231	1,082	1,095	512	160	20,449
Salaries and wages paid £'000	4,751	8,328	760	886	333	90	15,148
Value of power, fuel, etc., used £'000	85	156	11	14	7	2	275
Value of materials used £'000	7,240	14,786	1,211	1,403	449	133	25,222
Value of production £'000	6,998	12,730	924	1,285	426	167	22,530
Total value of output £'000	14,323	27,672	2,146	2,702	882	302	48,027
Value of land and buildings £'000	1,586	2,915	198	258	166	131	5,254
Value of plant and machinery £'000	781	2,684	245	420	142	35	4,307
Horse-power of engines ordinarily in use h.p.	4,812	10,153	936	940	575	156	17,572

AUSTRALIA.

Items.	1945-46.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Number of factories	383	516	494	474	486	482
Number of persons employed	18,264	22,323	21,557	21,432	20,839	20,449
Salaries and wages paid £'000	4,408	14,241	14,310	15,234	15,090	15,148
Value of power, fuel, etc., used £'000	75	227	233	257	266	275
Value of materials used £'000	7,520	21,020	21,812	22,221	22,854	25,222
Value of production £'000	6,472	19,640	20,480	21,222	22,019	22,530
Total value of output £'000	14,067	40,887	42,525	43,700	45,139	48,027
Value of land and buildings £'000	1,518	3,733	3,846	4,267	4,567	5,254
Value of plant and machinery £'000	1,222	3,380	3,646	3,715	3,979	4,307
Horse-power of engines ordinarily in use h.p.	9,678	17,488	16,485	16,496	16,663	17,572

(a) Includes details of boot and shoe repairing.

(ii) *Quantity and Value of Production.* The number and value of boots, shoes and slippers made in factories producing boots and shoes in each State are shown for 1958-59 in the following table. Particulars relating to the output of sand shoes, goloshes and gum, etc., boots of rubber are not included:—

BOOT AND SHOE FACTORIES: OUTPUT, 1958-59.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Boots, shoes and sandals							
pairs	8,088,698	12,624,824	1,129,703	1,565,949	566,970	78,256	24,054,400
£	13,833,377	23,242,898	1,901,017	2,656,937	743,210	148,059	42,525,498
Slippers							
pairs	2,274,139	5,696,595	294,908	35,805	(a)	(a)	8,535,305
£	1,633,664	3,000,598	218,005	27,530	(a)	(a)	5,065,477

(a) Not available for publication; figures are included in the total for Australia.

Preliminary figures for 1959-60 were—Boots, Shoes and Sandals, 25,378,000 pairs; and Slippers, 9,708,000 pairs.

22. Flour-milling.—(i) *Details of Industry.* The following table shows the position of the flour-milling industry in each State for the year 1958-59 and for Australia for a series of years:—

FLOUR-MILLING.

1958-59.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories ..	46	33	12	21	20	3	135
Number of persons employed ..	1,496	1,279	532	440	428	126	4,301
Salaries and wages paid .. £'000	1,566	1,286	484	426	386	133	4,281
Value of power, fuel, etc., used £'000	318	218	88	87	101	15	827
Value of materials used .. £'000	17,910	16,352	5,668	5,218	5,536	1,122	51,806
Value of production .. £'000	4,125	3,046	916	740	773	216	9,816
Total value of output .. £'000	22,353	19,616	6,672	6,045	6,410	1,353	62,449
Value of land and buildings .. £'000	2,705	1,969	820	413	735	69	6,711
Value of plant and machinery .. £'000	2,419	1,543	843	449	571	77	5,902
Horse-power of engines ordinarily in use h.p.	18,359	14,671	5,435	3,821	5,280	1,118	48,684

AUSTRALIA.

Items.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Number of factories ..	172	151	151	143	142	135
Number of persons employed ..	3,783	4,528	4,548	4,729	4,284	4,301
Salaries and wages paid .. £'000	896	3,851	4,073	4,375	4,190	4,281
Value of power, fuel, etc., used .. £'000	231	805	835	946	827	827
Value of materials used .. £'000	10,573	54,436	54,498	59,094	53,659	51,806
Value of production .. £'000	2,091	7,311	7,575	9,608	9,934	9,816
Total value of output .. £'000	12,895	62,552	62,908	69,648	64,420	62,449
Value of land and buildings .. £'000	2,091	4,533	5,211	5,686	6,322	6,711
Value of plant and machinery .. £'000	1,814	5,060	5,405	5,690	5,962	5,902
Horse-power of engines ordinarily in use h.p.	27,795	46,566	47,786	48,103	48,449	48,684

(ii) *Production of Flour and By-products.* The production of flour by the mills in each State (including other than flour mills) for the years 1938-39 and 1954-55 to 1959-60 was as follows:—

FLOUR-MILLING: PRODUCTION OF FLOUR.(a)

(Tons of 2,000 lb.)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
1938-39 ..	547,162	436,829	84,314	146,262	138,583	19,582	1,372,732
1954-55 ..	586,549	455,906	157,904	143,840	178,851	29,969	1,553,019
1955-56 ..	571,084	454,628	169,793	154,327	193,490	27,983	1,571,305
1956-57 ..	621,476	492,956	170,397	164,274	184,717	29,157	1,662,977
1957-58 ..	416,490	482,731	143,613	138,537	163,347	28,739	1,373,457
1958-59 ..	455,709	428,280	151,457	137,806	160,909	29,707	1,363,868
1959-60 (b) ..	539,055	427,491	161,507	148,340	153,549	30,384	1,460,326

(a) Includes wheatmeal for baking and sharps.

(b) Preliminary, subject to revision.

In addition, 520,000 tons (2,000 lb. per ton) of bran and pollard were produced in 1958-59 and 533,000 tons in 1959-60. The total quantity of wheat ground in flour mills was 61,830,000 bushels in 1958-59 and 67,201,000 bushels in 1959-60.

23. **Bakeries.**—Information regarding establishments in which the manufacture of bread, cakes, etc., was carried on is given in the table below. It should be noted, however, that the details refer only to establishments coming within the definition of a factory as explained at the beginning of this section. For that reason, the tables do not give complete details of the industry, as a large number of bakeries, etc. not coming within the definition are excluded. This is true of all other industries covered by the statistics of manufacturing production, but, in view of the omission of such a large number of establishments in this instance, special mention is deemed necessary.

BAKERIES (INCLUDING CAKES AND PASTRY).

1958-59.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.(a)	Aust.(a)
Number of factories ..	1,643	1,253	527	270	301	156	4,150
Number of persons employed ..	8,026	6,043	2,467	1,654	1,063	1,741	20,994
Salaries and wages paid .. £'000	5,478	3,820	1,356	1,109	598	1,368	13,729
Value of power, fuel, etc., used .. £'000	1,034	745	271	196	131	169	2,546
Value of materials used .. £'000	17,152	12,081	5,039	3,638	2,325	5,377	45,612
Value of production .. £'000	12,730	9,032	3,395	2,438	1,614	2,973	32,182
Total value of output .. £'000	30,916	21,858	8,705	6,272	4,070	8,519	80,340
Value of land and buildings .. £'000	9,274	7,041	1,692	1,574	1,024	1,615	22,220
Value of plant and machinery .. £'000	4,826	3,753	1,181	1,017	707	2,067	13,551
Horse-power of engines ordinarily in use .. h.p.	11,911	8,030	3,352	3,082	1,998	5,343	33,716

AUSTRALIA.(a)

Items.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Number of factories ..	1,958	3,800	3,878	3,813	3,986	4,150
Number of persons employed ..	11,715	19,125	19,543	19,964	20,323	20,994
Salaries and wages paid .. £'000	1,993	10,648	11,611	12,663	13,110	13,729
Value of power, fuel, etc., used .. £'000	306	1,902	2,090	2,308	2,440	2,546
Value of materials used .. £'000	6,651	35,899	37,820	40,704	43,476	45,612
Value of production .. £'000	4,509	23,582	26,418	29,706	29,816	32,182
Total value of output .. £'000	11,466	61,383	66,328	72,718	75,732	80,340
Value of land and buildings .. £'000	4,960	14,352	15,865	17,991	20,205	22,220
Value of plant and machinery .. £'000	1,478	8,373	9,461	10,590	11,797	13,551
Horse-power of engines ordinarily in use h.p.	10,855	27,815	29,535	30,204	32,162	33,716

(a) Includes confectionery in Tasmania.

24. **Sugar-mills.**—(i) *General.* Sugar-cane is grown in New South Wales and Queensland and particulars of area, yield, etc., are given in extended detail in Chapter XXII.—Agricultural Production.

The products of the sugar-mill are raw sugar and molasses, the former being sent to the refineries in different parts of Australia for further treatment. Particulars of cane crushed and sugar produced included in the following table refer to the quantities treated during the years ended 30th June, irrespective of the season in which the cane was grown; consequently, the figures relating to cane crushed and sugar produced may differ slightly from those given in Chapter XXII.—Agricultural Production, which relate to harvest years.

(ii) *Details for States.* The following table shows details of the operations of sugar mills in New South Wales and Queensland for the years 1938-39 and 1954-55 to 1958-59:—

SUGAR-MILLS.

Items.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
NEW SOUTH WALES.						
Number of factories ..	3	3	3	3	3	3
Number of persons employed ..	212	187	152	153	170	254
Cane crushed .. tons	337,038	222,313	284,539	294,087	303,086	471,658
Raw sugar produced (94 net titre) .. tons	45,106	26,301	36,028	35,918	36,854	58,743
QUEENSLAND.						
Number of factories ..	33	31	31	31	31	31
Number of persons employed ..	4,419	7,272	7,044	7,099	6,547	6,621
Cane crushed .. tons	5,432,193	9,864,304	8,616,163	8,978,081	8,945,617	9,740,795
Raw sugar produced (94 net titre) .. tons	775,064	1,301,245	1,135,685	1,171,879	1,256,271	1,353,543
Molasses—						
Sold to distilleries .. '000 gals	8,276	23,167	22,772	24,094	20,558	24,045
Used as fodder .. " "	4,237	5,753	5,285	5,536	4,861	6,028
Used as manure .. " "	3,293	10,501	10,637	9,177	10,880	10,059
Run to waste .. " "	499	233	185	51	285	106
Burnt as fuel .. " "	3,749	1,079	1,519	1,405	284	111
Sold or used for other purposes .. '000 gals	232	473	588	523	508	507
Total molasses disposed of .. '000 gals	20,286	41,206	40,986	40,786	37,376	40,856

25. *Sugar-refining.*—The establishment of the sugar-refining industry considerably antedates the establishment of the sugar-milling industry, the raw material operated on in the earlier years coming chiefly from Mauritius and the East. In 1958-59, there were two sugar refineries in Queensland and one each in New South Wales, Victoria, South Australia and Western Australia. The total quantity of raw sugar treated amounted to 536,086 tons for a yield of 518,921 tons of refined sugar.

26. *Confectionery.*—Particulars for 1958-59 for each State and for Australia for a series of years are shown hereunder:—

CONFECTIONERY.

1958-59.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.(b)
Number of factories ..	85	84	20	14	6	(a)	209
Number of persons employed ..	2,858	3,061	174	347	264	(a)	6,704
Salaries and wages paid .. £'000	2,270	2,282	87	219	179	(a)	5,037
Value of power, fuel, etc., used .. £'000	260	229	9	23	15	(a)	536
Value of materials used .. £'000	8,204	7,111	364	611	552	(a)	16,842
Value of production .. £'000	5,474	4,287	154	308	363	(a)	10,586
Total value of output .. £'000	13,938	11,627	527	942	930	(a)	27,964
Value of land and buildings .. £'000	2,263	2,075	93	284	97	(a)	4,812
Value of plant and machinery .. £'000	2,209	2,069	69	144	81	(a)	4,572
Horse-power of engines ordinarily in use .. h.p.	13,374	14,870	351	1,413	496	(a)	30,504

AUSTRALIA.(b)

Items.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Number of factories ..	148	238	226	213	217	209
Number of persons employed ..	7,256	7,069	7,183	6,818	6,789	6,704
Salaries and wages paid .. £'000	1,041	4,516	4,805	4,866	4,982	5,037
Value of power, fuel, etc., used .. £'000	107	447	473	509	529	536
Value of materials used .. £'000	3,102	14,917	15,583	15,391	16,052	16,842
Value of production .. £'000	2,418	8,320	8,932	9,885	9,771	10,586
Total value of output .. £'000	5,627	23,684	24,988	25,785	26,352	27,964
Value of land and buildings .. £'000	1,423	2,964	3,324	3,239	4,351	4,812
Value of plant and machinery .. £'000	1,364	3,368	3,612	3,582	3,891	4,572
Horse-power of engines ordinarily in use h.p.	16,154	27,374	29,156	27,348	29,256	30,504

(a) Not available for publication. Included with bakeries.

(b) Excludes Tasmania.

27. Jam, Fruit and Vegetable Canning, Pickles, Sauces, Vinegar.—(i) *Details of Industry.* The following table shows particulars of factories included in this class for each State for 1958–59 and for Australia for a series of years:—

JAM, FRUIT AND VEGETABLE CANNING, PICKLES, SAUCES, VINEGAR.
1958–59.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories ..	53	60	19	19	9	20	180
Number of persons employed ..	2,530	4,425	1,484	926	118	1,279	10,762
Salaries and wages paid .. £'000	2,118	4,002	1,404	643	85	934	9,186
Value of power, fuel, etc., used .. £'000	250	468	84	55	8	84	949
Value of materials used .. £'000	7,835	19,829	6,219	1,879	287	2,309	38,358
Value of production .. £'000	4,100	8,440	2,312	1,142	196	1,268	17,458
Total value of output .. £'000	12,185	28,737	8,615	3,076	491	3,661	56,765
Value of land and buildings .. £'000	2,340	6,858	764	659	147	862	11,630
Value of plant and machinery .. £'000	1,742	5,451	490	975	67	848	9,573
Horse-power of engines ordinarily in use .. h.p.	10,163	28,565	2,771	2,521	378	4,141	48,539

AUSTRALIA.

Items.	1938–39.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
Number of factories ..	123	184	183	182	187	180
Number of persons employed ..	6,476	11,061	11,578	12,019	11,407	10,762
Salaries and wages paid .. £'000	1,149	7,945	8,924	9,698	9,752	9,186
Value of power, fuel, etc., used .. £'000	97	699	802	957	978	949
Value of materials used .. £'000	4,800	29,708	32,323	39,874	41,159	38,358
Value of production .. £'000	2,334	15,312	16,103	18,792	19,753	17,458
Total value of output .. £'000	7,231	45,719	49,228	59,623	61,890	56,765
Value of land and buildings .. £'000	1,382	6,193	8,874	9,790	10,621	11,630
Value of plant and machinery .. £'000	721	5,496	8,083	8,752	9,275	9,573
Horse-power of engines ordinarily in use h.p.	7,873	32,661	38,508	45,820	55,824	48,539

(ii) *Production.* During the 1939–45 War, production of jams increased greatly and an output of 171 million lb. was attained in 1943–44. Production afterwards decreased, but attained a new record of 198.5 million lb. in 1947–48. It dropped again to 78.2 million lb. in 1958–59. Preliminary figures for 1959–60 show production as being 84.5 million lb.

Production of preserved fruit in 1958–59 was 312.6 million lb., the highest on record being 349.4 million lb. in 1957–58. Preliminary figures for 1959–60 show production as being 339.8 million lb.

There has also been a marked development in the production of canned vegetables. In 1938–39, output totalled 10.3 million lb. but, as a result of the war-time demand by the armed services, production reached the record level of 119.1 million lb. in 1944–45. However, it has since declined and in 1958–59 amounted to 66.9 million lb. Preliminary figures for 1959–60 show production as being 81.6 million lb.

The following table shows the total quantity of jams, pickles, sauces and other items manufactured in each State in 1958–59:—

JAMS, PRESERVED FRUIT AND VEGETABLES, PICKLES AND SAUCES: 1958–59.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Jams '000 lb.	21,488	33,639	9,728	(a)	(a)	(a)	78,234
Fruit, preserved	36,914	151,393	87,142	19,778	(a)	(a)	312,563
Fruit Pulp(b) cwt.	(a)	(a)	(a)	(a)	..	51,315	114,113
Fruit Juices, natural '000 gals.	357	160	3,951	(a)	(a)	66	5,073
Vegetables, preserved '000 lb.	27,528	25,664	(a)	(a)	(a)	(a)	66,883
Pickled Vegetables	4,758	1,136	303	1,131	318	(a)	7,646
Tomato Pulp(b) cwt.	22,235	381,931	(a)	27,007	(a)	(a)	458,410
Tomato Paste, Puree, etc., .. '000 pints	1,259	1,223	..	..	(a)	(a)	2,507
Tomato Juice	49	949	(a)	422	(a)	..	1,468
Pickles '000 pints	1,808	1,953	(a)	1,164	(a)	..	5,210
Chutney	335	396	(a)	(a)	(a)	(a)	1,143
Sauces	11,827	13,819	1,401	2,528	(a)	(a)	30,694
Soup (canned)	2,920	28,075	..	(a)	(a)	..	31,480
Soup, Dry Mix '000 lb.	(a)	350	79	(a)	(a)	..	4,329

(a) Not available for publication. Figures are included in the total for Australia.
quantities made and used in the works producing them.

(b) Includes

28. Bacon-curing.—(i) *Details of Industry.* The table hereunder shows particulars of factories engaged in bacon-curing in each State for 1958-59 and for Australia for a series of years:—

BACON-CURING.

1958-59.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories ..	29	16	9	14	4	8	80
Number of persons employed ..	697	847	1,660	545	301	112	4,162
Salaries and wages paid .. £'000	658	762	1,394	502	232	101	3,649
Value of power, fuel, etc., used £'000	86	105	119	70	39	12	431
Value of materials used .. £'000	4,632	5,859	8,339	2,922	2,450	835	25,037
Value of production .. £'000	1,442	1,233	2,579	650	304	265	6,473
Total value of output .. £'000	6,160	7,197	11,037	3,642	2,793	1,112	31,941
Value of land and buildings £'000	670	676	1,025	458	132	143	3,104
Value of plant and machinery £'000	288	402	671	302	103	40	1,806
Horse-power of engines ordinarily in use .. h.p.	2,153	2,878	5,096	2,343	1,125	513	14,108

AUSTRALIA.

Items.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Number of factories ..	76	84	82	81	80	80
Number of persons employed ..	2,047	3,201	3,414	3,472	3,745	4,162
Salaries and wages paid .. £'000	480	2,517	2,754	2,956	3,311	3,649
Value of power, fuel, etc., used .. £'000	77	322	339	362	403	431
Value of materials used .. £'000	3,768	18,318	20,814	22,373	22,147	25,037
Value of production .. £'000	865	5,715	4,997	5,273	6,798	6,473
Total value of output .. £'000	4,710	24,355	26,150	28,008	29,348	31,941
Value of land and buildings .. £'000	750	1,956	2,308	2,452	2,667	3,104
Value of plant and machinery .. £'000	357	1,100	1,329	1,512	1,654	1,806
Horse-power of engines ordinarily in use h.p.	9,389	11,791	13,019	13,472	14,747	14,108

(ii) *Quantity of Production.* The number of pigs cured and the quantity of bacon and ham and lard produced in factories in each State for 1958-59 are shown in the following table:—

BACON-CURING FACTORIES: PIGS CURED AND PRODUCTION, 1958-59.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Pigs killed for bacon and ham—							
For curing on own account	155,046	147,617	276,083	76,504	101,893	38,111	795,254
For curing on commission	10,174	2,502	2,177	975	(a)	(a)	16,296
Pork and green bacon used for—							
Curing on own account '000 lb.	5,222	4,850	105	1,154	(a)	..	12,016
Curing on commission '000 lb.	5,613	277	..	(a)	..	(a)	5,897
Sugar used .. ton	42	36	146	24	31	16	295
Finished bacon and ham made (b)—							
On own account '000 lb.	16,500	15,550	21,147	6,392	6,600	1,808	67,997
On commission ..	5,890	498	283	105	(a)	(a)	6,818
Green bacon and ham ..	567	1,805	708	546	324	300	4,250
Lard produced .. cwt.	3,963	4,933	18,925	4,162	6,177	962	39,122

(a) Not available for publication; figures are included in the total for Australia. (b) Includes smoked bacon and ham, cooked ham (not smoked) made for retail sale, and canned bacon and ham.

Bacon and ham and other pig products are dealt with more fully in Chapter XXIV.—Farmyard, Dairy and Bee Products.

29. Butter, Cheese and Condensed and Dried Milk.—(i) *Details of Industry.* The following table shows particulars of butter, cheese and condensed and dried milk factories in each State for 1958–59 and for Australia for a series of years:—

BUTTER, CHEESE AND CONDENSED AND DRIED MILK.
1958–59.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories ..	77	127	78	41	19	21	363
Number of persons employed ..	2,405	5,452	1,621	732	325	362	10,897
Salaries and wages paid .. £'000	2,230	5,465	1,377	580	277	341	10,270
Value of power, fuel, etc., used .. £'000	732	1,528	319	101	63	73	2,816
Value of materials used ..	17,291	51,382	20,776	4,877	3,033	4,570	101,929
Value of production .. £'000	4,441	11,799	2,783	1,104	615	704	21,446
Total value of output .. £'000	22,464	64,709	23,878	6,082	3,711	5,347	126,191
Value of land and buildings .. £'000	3,356	6,763	1,956	675	379	389	13,518
Value of plant and machinery .. £'000	3,653	7,995	2,558	713	447	453	15,819
Horse-power of engines ordinarily in use .. h.p.	31,171	39,283	24,826	6,960	3,078	2,562	107,880

AUSTRALIA.

Items.	1938–39.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
Number of factories ..	523	379	375	371	366	363
Number of persons employed ..	6,851	10,567	11,119	11,189	10,870	10,897
Salaries and wages paid .. £'000	1,570	8,680	9,568	10,068	9,995	10,270
Value of power, fuel, etc., used .. £'000	390	2,423	2,741	2,797	2,692	2,816
Value of materials used .. £'000	29,162	100,706	106,883	101,517	94,566	101,929
Value of production .. £'000	3,543	15,394	18,893	19,265	19,561	21,446
Total value of output .. £'000	33,095	118,523	128,517	123,579	116,819	126,191
Value of land and buildings .. £'000	2,880	10,037	11,188	11,985	12,558	13,518
Value of plant and machinery .. £'000	3,067	12,553	13,923	14,631	15,254	15,819
Horse-power of engines ordinarily in use .. h.p.	45,059	98,442	102,182	108,157	109,647	107,880

(ii) *Quantity and Value of Production.* The next table shows the quantities and values of butter, cheese and condensed milk produced and the quantities of milk used in their production during 1958–59. These details are restricted to factory production and therefore exclude farm output.

BUTTER, CHEESE AND CONDENSED MILK, ETC., FACTORIES: PRODUCTION.
1958–59.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
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MATERIALS USED.

Whole Milk used in manufacture of							
Butter '000 gal.	175,381	411,443	184,030	29,879	27,685	48,056	876,474
Cheese	10,745	37,638	18,625	24,280	2,600	836	94,724
Condensed, Dried and other Milk Products '000 gal.	14,912	60,859	7,831	4	3,715	2,941	90,262
Sugar ton	1,109	12,658	(a)	..	(a)	(a)	15,571

PRODUCTION.
(Tons.)

Butter	37,733	88,143	41,022	7,055	6,166	10,804	190,923
Cheese (Green Weight)	5,044	17,440	8,220	11,200	1,181	339	43,424
Cheese (Processed) (b)	(a)	(a)	1,682	..	..	(a)	14,367
Casein	856	10,423	(a)	..	(a)	..	11,328
Condensed, Concentrated and Evaporated Milk—							
Full Cream—Sweetened	(a)	27,986	..	..	(a)	..	31,626
Unsweetened	(a)	14,265	(a)	..	(a)	(a)	29,846
Skim and/or Buttermilk	(a)	(a)	(a)	..	(a)	..	4,943
Milk Powder—							
Full Cream	5,389	10,929	(a)	(a)	..	..	19,183
Skim	11,496	21,154	706	(a)	(a)	..	34,128
Buttermilk and Whey	1,050	3,013	1,306	(a)	(a)	(a)	6,024
Other Whole Milk Products	(a)	(a)	(a)	..	..	(a)	14,134
Ice Cream Mix—Powder	(a)	524	(a)	(a)	(a)	..	642

(a) Not available for publication; figures are included in the total for Australia. (b) The cheese used in the manufacture of these products is included in Cheese (Green Weight) made as shown above.

The butter, cheese and condensed milk industries are dealt with more fully in Chapter XXIV.—Farmyard, Dairy and Bee Products.

30. Meat and Fish Preserving.—The industries included in this group are engaged chiefly in the freezing and preserving of meat. Works have been established at the seaports for the purpose of handling beef, lamb and mutton for export, and insulated space for the carriage of chilled and frozen produce is provided by shipping companies trading between Australia and other parts of the world. The substitution of chilled for frozen meat exported is referred to in Chapter XXIII.—Pastoral Production. In recent years, there has been considerable expansion in the canning of meat and fish.

MEAT AND FISH PRESERVING.

1958–59.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories	8	13	35	20	35	4	115
Number of persons employed ..	494	740	7,113	294	1,448	53	10,142
Salaries and wages paid .. £'000	433	754	7,805	210	1,433	64	10,699
Value of power, fuel, etc., used £'000	80	186	834	34	151	7	1,292
Value of materials used .. £'000	2,166	4,604	50,028	1,491	3,414	113	61,816
Value of production .. £'000	961	1,727	10,217	318	2,040	91	15,354
Total value of output .. £'000	3,207	6,517	61,079	1,843	5,605	211	78,462
Value of land and buildings £'000	277	985	3,765	215	2,136	81	7,459
Value of plant and machinery £'000	199	1,010	2,836	163	1,030	23	5,261
Horse-power of engines ordinarily in use h.p.	1,259	4,199	23,749	1,075	8,344	368	38,994

AUSTRALIA.

Items.	1938–39.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
Number of factories	32	114	116	113	114	115
Number of persons employed ..	4,093	9,432	9,550	8,866	8,878	10,142
Salaries and wages paid .. £'000	1,180	8,327	8,704	8,366	8,690	10,699
Value of power, fuel, etc. used .. £'000	134	1,110	1,119	1,099	1,128	1,292
Value of materials used .. £'000	6,351	46,642	46,359	45,483	45,695	61,816
Value of production .. £'000	1,601	12,182	14,345	14,385	13,723	15,354
Total value of output .. £'000	8,086	59,934	61,823	60,967	60,546	78,462
Value of land and buildings .. £'000	1,966	5,403	5,934	6,241	6,710	7,459
Value of plant and machinery .. £'000	1,325	3,409	4,118	4,147	4,594	5,261
Horse-power of engines ordinarily in use h.p.	13,385	35,600	33,086	36,517	36,956	38,994

Particulars of the quantities and values of beef, mutton and lamb preserved by cold process exported from Australia over a series of years will be found in Chapter XXIII.—Pastoral Production.

31. Breweries.—(i) *Details of Industry.* The following table gives particulars of breweries in each State for the year 1958–59 and for Australia for a series of years. It should be noted, however, that the data shown are not strictly comparable throughout, owing to the inability or failure of some breweries to furnish a separate return for each branch of activity. Consequently the figures for some States include details of employment, wages, output, etc., not directly concerned with the brewing of beer, although associated with it. These extraneous activities include cooperage, malt works, aerated waters, etc.

BREWERIES.

1958–59.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories	6	7	6	3	3	2	27
Number of persons employed ..	1,923	1,889	843	(a)	(a)	(a)	5,830
Salaries and wages paid .. £'000	2,113	2,060	800	(a)	(a)	(a)	6,232
Value of power, fuel, etc. used £'000	552	389	213	(a)	(a)	(a)	1,488
Value of materials used .. £'000	8,228	7,773	2,303	(a)	(a)	(a)	22,416
Value of production .. £'000	6,592	3,814	2,482	(a)	(a)	(a)	16,964
Total value of output(b) .. £'000	15,372	11,976	4,998	(a)	(a)	(a)	40,868
Value of land and buildings £'000	4,025	3,038	3,023	(a)	(a)	(a)	12,716
Value of plant and machinery £'000	5,711	4,249	2,327	(a)	(a)	(a)	15,727
Horse-power of engines ordinarily in use h.p.	15,369	12,860	8,965	(a)	(a)	(a)	46,525

(a) Not available for publication; figures are included in the total for Australia.
Excise Duty.

(b) Excludes

BREWERIES—continued.

AUSTRALIA.

Items.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Number of factories	34	30	28	27	26	27
Number of persons employed	3,698	6,791	6,835	6,107	5,909	5,830
Salaries and wages paid £'000	1,215	6,272	6,588	6,196	6,228	6,232
Value of power, fuel, etc., used £'000	251	1,369	1,396	1,509	1,479	1,488
Value of materials used £'000	3,407	20,810	22,437	21,238	22,146	22,416
Value of production £'000	5,372	14,855	15,224	16,266	17,271	16,964
Total value of output(a) £'000	9,030	37,034	39,057	39,013	40,896	40,868
Value of land and buildings £'000	2,801	8,307	10,099	11,069	11,797	12,716
Value of plant and machinery £'000	2,737	10,295	12,917	14,863	15,510	15,727
Horse-power of engines ordinarily in use h.p.	23,231	42,359	44,908	45,268	44,869	46,525

(a) Excludes Excise Duty.

(ii) *Production, Consumption, Materials Used.* The quantity of ale, beer and stout brewed fell from 73.7 million gallons in 1928-29 to 49.8 million gallons in 1931-32, but thereafter increased each year to 109.2 million gallons in 1941-42. Under the Control of Liquor Order which operated between March, 1942, and March, 1946, the production of beer was restricted and consequently annual output remained static at about 100 million gallons from 1942-43 to 1944-45. Thereafter, production increased, and in 1959-60 amounted to over 237 million gallons.

The average annual consumption of ale, beer and stout per head of population exceeded 11 gallons prior to the economic depression of the early thirties; it dropped to 7.3 gallons in 1931-32, increased to 13.8 gallons in 1941-42 and declined again to about 13 gallons during the period of control from 1942 to 1946. The consumption per head had increased to 22.6 gallons by 1959-60.

The table below shows the quantities of materials used and the quantity and value of ale, beer (excluding waste beer) and stout brewed in each State during 1958-59:—

BREWERIES: MATERIALS USED AND PRODUCTION, 1958-59.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
MATERIALS USED.							
Malt '000 bus.	2,463	(a)	755	(a)	(a)	(a)	6,525
Hops '000 lb.	1,951	(a)	504	(a)	(a)	(a)	4,317
Sugar ton	20,323	(a)	4,592	(a)	(a)	(a)	42,528

ALE, BEER AND STOUT BREWED (EXCLUDING WASTE BEER).

Quantity .. '000 gals.	91,685	(a)	24,695	(a)	(a)	(a)	223,597
Value (b) .. £'000	15,183	(a)	4,949	(a)	(a)	(a)	40,171

(a) Not available for publication; figures are included in the total for Australia.

(b) Excludes Excise Duty.

32. *Wineries and Distilleries.*—The following table shows particulars of the operations of Wineries and Distilleries for each State during 1958-59 and for Australia for a series of years:—

WINERIES AND DISTILLERIES.

1958-59.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories	32	27	5	72	22	..	158
Number of persons employed	229	309	158	1,254	71	..	2,021
Salaries and wages paid £'000	237	280	155	1,114	41	..	1,827
Value of power, fuel, etc., used £'000	127	57	70	139	3	..	396
Value of materials used £'000	2,318	665	511	4,260	146	..	7,900
Value of production £'000	640	857	290	2,008	94	..	3,889
Total value of output £'000	3,085	1,579	871	6,407	243	..	12,185
Value of land and buildings £'000	395	382	115	1,622	74	..	2,588
Value of plant and machinery £'000	557	360	357	1,234	65	..	2,573
Horse-power of engines ordinarily in use h.p.	1,364	1,188	777	7,086	358	..	10,773

WINERIES AND DISTILLERIES—*continued.*

AUSTRALIA.

Items.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Number of factories	135	158	155	157	160	158
Number of persons employed	1,133	2,022	1,908	2,027	2,066	2,021
Salaries and wages paid £'000	246	1,506	1,532	1,699	1,800	1,827
Value of power, fuel, etc., used £'000	58	387	368	423	426	396
Value of materials used £'000	1,421	4,885	5,074	6,461	7,448	7,900
Value of production £'000	811	2,846	2,890	3,704	4,569	3,889
Total value of output £'000	2,290	8,118	8,332	10,588	12,443	12,185
Value of land and buildings £'000	1,002	2,312	2,254	2,363	2,458	2,588
Value of plant and machinery £'000	916	2,170	2,099	2,348	2,339	2,573
Horse-power of engines ordinarily in use h.p.	4,396	11,054	11,159	11,412	11,548	10,773

33. *Tobacco, Cigars and Cigarettes.*—Particulars of establishments in which the manufacture of tobacco, cigars or cigarettes was carried on during 1958-59 are shown below for each State and for Australia for a series of years. There are no such factories in South Australia or Tasmania.

TOBACCO, CIGARS AND CIGARETTES.

1958-59.

Items.	N.S.W.	Vic.	Q'land.	W. Aust.	Aust.
Number of factories	8	8	(a)	(a)	22
Number of persons employed	2,763	1,918	(a)	(a)	4,779
Salaries and wages paid £'000	2,432	1,694	(a)	(a)	4,178
Value of power, fuel, etc., used £'000	78	78	(a)	(a)	160
Value of materials used £'000	21,429	14,250	(a)	(a)	35,775
Value of production £'000	8,196	5,211	(a)	(a)	13,451
Total value of output(b) £'000	29,703	19,539	(a)	(a)	49,386
Value of land and buildings £'000	990	1,541	(a)	(a)	2,700
Value of plant and machinery £'000	2,124	1,962	(a)	(a)	4,178
Horse-power of engines ordinarily in use h.p.	5,462	4,502	(a)	(a)	10,384

AUSTRALIA.

Items.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Number of factories	30	34	33	29	27	22
Number of persons employed	5,544	4,707	4,622	4,630	4,754	4,779
Salaries and wages paid £'000	1,096	3,516	3,728	4,038	4,203	4,178
Value of power, fuel, etc., used £'000	34	158	128	127	145	160
Value of materials used £'000	7,081	28,825	31,227	33,535	35,408	35,775
Value of production £'000	2,685	9,745	9,244	10,999	11,177	13,451
Total value of output(b) £'000	9,800	38,728	40,599	44,661	46,730	49,386
Value of land and buildings £'000	1,042	1,504	1,867	1,764	2,962	2,700
Value of plant and machinery £'000	943	2,190	2,784	3,059	4,136	4,178
Horse-power of engines ordinarily in use h.p.	4,610	8,466	10,778	10,990	10,586	10,384
Leaf used—						
Australian (stemmed) '000 lb.	4,489	4,482	5,204	5,299	7,158	8,792
Imported (stemmed) '000 lb.	16,011	36,053	37,399	40,860	38,369	40,179
Tobacco made '000 lb.	16,305	21,466	18,836	18,917	18,192	17,087
Cigars made '000 lb.	238	151	132	114	119	109
Cigarettes made '000 lb.	6,731	22,859	27,162	30,513	32,748	35,255

(a) Not available for publication; figures are included in the total for Australia.
Excise Duty.

(b) Excludes

For many years the production of locally-grown leaf was comparatively small, and manufacturers were dependent on imported leaf for the supply of their raw materials. Increased import duties stimulated local production, and the quantity of Australian leaf used by manufacturers rose from 1.2 million lb. in 1929-30 to over 3 million lb. in 1930-31. During the 1939-45 War, about 4.7 million lb. of Australian-grown leaf was used annually and the 1958-59 usage was 8.8 million lb. For further information see Chapter XXII.—Agricultural Production.

Imports of tobacco during 1958-59 comprised: manufactured tobacco, 367,441 lb., cigars, 91,394 lb., cigarettes, 386,789 lb., unmanufactured tobacco, 38,678,767 lb.; and in 1959-60 were 591,796 lb., 139,714 lb., 975,434 lb. and 37,004,900 lb. respectively.

34. Sawmills, etc.—The most important industry in Class X. is sawmilling. Because of difficulties associated with the classifying of sawmills into forest and town mills, they have been combined in the following table, together with plywood and veneer mills.

SAWMILLS AND PLYWOOD AND VENEER MILLS.

1958-59.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories ..	1,012	553	586	95	245	314	2,805
Number of persons employed ..	10,826	7,257	8,425	2,491	4,289	2,603	35,891
Salaries and wages paid .. £'000	8,966	6,375	6,494	2,134	3,367	2,142	29,478
Value of power, fuel, etc., used £'000	740	521	444	160	304	213	2,382
Value of materials used .. £'000	24,103	15,348	13,446	6,501	5,761	5,094	70,253
Value of production .. £'000	17,191	11,909	10,664	3,815	6,050	4,020	53,649
Total value of output .. £'000	42,034	27,778	24,554	10,476	12,115	9,327	126,284
Value of land and buildings £'000	5,415	3,071	1,936	2,341	892	890	14,545
Value of plant and machinery £'000	5,181	3,317	3,516	2,820	1,981	1,922	18,737
Horse-power of engines ordinarily in use h.p.	119,477	81,950	90,605	26,955	42,007	34,636	395,630

AUSTRALIA.

Items.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59
Number of factories ..	1,639	3,033	3,025	3,000	2,910	2,805
Number of persons employed ..	19,056	36,631	37,102	35,835	35,185	35,891
Salaries and wages paid .. £'000	3,626	25,530	27,086	27,563	27,932	29,478
Value of power, fuel, etc., used .. £'000	225	1,805	1,938	2,056	2,143	2,382
Value of materials used .. £'000	8,441	61,073	65,618	66,817	69,644	70,253
Value of production .. £'000	5,762	45,319	47,042	47,928	50,246	53,649
Total value of output .. £'000	14,428	108,197	114,598	116,801	122,033	126,284
Value of land and buildings .. £'000	2,029	10,321	11,136	12,079	13,924	14,545
Value of plant and machinery .. £'000	2,777	14,896	16,201	17,086	17,971	18,737
Horse-power of engines ordinarily in use h.p.	89,843	359,786	371,003	378,902	380,203	395,630

The sawmill output of Australian grown timber, which declined from 740 million super. feet in 1925-26 to the abnormally low figure of 237 million super. feet during the depth of the depression, recovered to 717 million super. feet in 1938-39 and by 1959-60 had risen to 1,500 million super. feet. Further reference is made to the sawmilling industry in Chapter XXV.—Forestry.

35. Cabinet and Furniture Making and Upholstery.—These industries constitute the principal manufactures in Class XI. The following table shows particulars for each State in 1958-59 and for Australia for a series of years.

CABINET AND FURNITURE MAKING AND UPHOLSTERY, 1958-59.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories ..	570	505	232	121	150	51	1,629
Number of persons employed ..	6,225	4,716	2,261	1,436	1,010	364	16,012
Salaries and wages paid .. £'000	5,541	3,886	1,541	1,081	676	238	12,963
Value of power, fuel, etc., used £'000	139	101	39	31	19	5	334
Value of materials used .. £'000	10,405	5,713	2,686	1,761	1,288	369	22,222
Value of production .. £'000	8,992	6,578	2,453	1,731	1,080	394	21,228
Total value of output .. £'000	19,536	12,392	5,178	3,523	2,387	768	43,784
Value of land and buildings £'000	4,304	3,509	1,131	725	590	198	10,457
Value of plant and machinery £'000	971	842	355	279	179	53	2,679
Horse-power of engines ordinarily in use h.p.	16,013	13,785	6,746	5,161	3,628	1,206	46,539

CABINET AND FURNITURE MAKING AND UPHOLSTERY—*continued.*

AUSTRALIA.

Items.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Number of factories	880	1,658	1,642	1,635	1,644	1,629
Number of persons employed	11,576	15,271	15,250	15,164	15,929	16,012
Salaries and wages paid £'000	2,139	10,067	10,840	11,193	12,462	12,963
Value of power, fuel, etc., used £'000	64	258	272	289	311	334
Value of material used £'000	3,380	16,538	17,470	17,926	20,860	22,222
Value of production £'000	3,223	15,888	17,064	18,059	20,163	21,228
Total value of output £'000	6,667	32,684	34,806	36,274	41,334	43,784
Value of land and buildings £'000	1,897	6,204	6,799	7,759	9,069	10,457
Value of plant and machinery £'000	574	2,196	2,292	2,424	2,515	2,679
Horse-power of engines ordinarily in use h.p.	18,971	46,413	46,957	45,096	46,447	46,539

36. **Printing Works.**—Printing and bookbinding rank high in importance among the industries of Australia and in 1958-59 afforded employment for 41,705 employees, and paid £38,995,268 in salaries and wages while the value of output amounted to £130,259,383. The following table gives particulars of establishments engaged in general printing in each State for 1958-59 and for Australia for a series of years. These establishments include those engaged in lithographic printing, bookbinding, paper ruling and linotyping and Government printing works.

GOVERNMENT AND GENERAL PRINTING WORKS, 1958-59.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories	667	542	114	86	82	27	1,518
Number of persons employed	10,999	9,669	2,417	1,688	1,438	616	26,827
Salaries and wages paid £'000	10,204	8,748	1,785	1,389	1,080	499	23,705
Value of power, fuel, etc., used £'000	325	269	49	38	33	15	729
Value of materials used £'000	14,911	12,323	1,878	1,609	1,224	475	32,420
Value of production £'000	17,535	15,581	2,925	2,270	1,938	787	41,036
Total value of output £'000	32,771	28,173	4,852	3,917	3,195	1,277	74,185
Value of land and buildings £'000	9,209	6,769	963	826	750	524	19,041
Value of plant and machinery £'000	7,433	6,672	1,165	1,090	834	341	17,535
Horse-power of engines ordinarily in use h.p.	17,762	14,836	2,783	2,344	2,116	910	40,751

AUSTRALIA.

Items.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Number of factories	1,028	1,285	1,347	1,399	1,431	1,518
Number of persons employed	18,369	23,571	24,453	25,271	25,916	26,827
Salaries and wages paid £'000	3,435	17,672	19,421	20,632	22,099	23,705
Value of power, fuel, etc., used £'000	110	511	551	621	675	729
Value of materials used £'000	3,703	23,950	25,792	27,202	29,809	32,420
Value of production £'000	5,749	28,968	32,075	35,136	38,068	41,036
Total value of output £'000	9,562	53,429	58,418	62,959	68,552	74,185
Value of land and buildings £'000	3,956	10,120	11,715	13,310	15,084	19,041
Value of plant and machinery £'000	3,186	11,769	13,560	14,586	15,705	17,535
Horse-power of engines ordinarily in use h.p.	17,759	34,507	35,667	36,784	37,963	40,751

The following table gives similar particulars in respect of establishments producing newspapers and periodicals:—

NEWSPAPERS AND PERIODICALS, 1958-59.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories ..	177	128	58	36	19	5	423
Number of persons employed ..	6,959	3,317	2,288	1,169	737	408	14,878
Salaries and wages paid .. £'000	7,233	3,471	2,141	1,183	819	444	15,291
Value of power, fuel, etc., used .. £'000	286	135	79	39	41	10	590
Value of materials used .. £'000	11,823	8,660	3,205	2,268	1,408	382	27,746
Value of production .. £'000	12,961	6,173	3,985	2,260	1,749	610	27,738
Total value of output .. £'000	25,070	14,968	7,269	4,567	3,198	1,002	56,074
Value of land and buildings .. £'000	7,514	2,350	1,398	1,478	771	228	13,739
Value of plant and machinery .. £'000	6,423	2,211	1,498	682	561	220	11,595
Horse-power of engines ordinarily in use .. h.p.	14,990	10,020	5,617	3,465	2,542	806	37,440

AUSTRALIA.

Items.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Number of factories ..	472	413	416	412	407	423
Number of persons employed ..	10,091	13,675	14,446	14,640	14,387	14,878
Salaries and wages paid .. £'000	2,667	11,598	13,273	13,134	13,997	15,291
Value of power, fuel, etc., used .. £'000	131	493	511	551	562	590
Value of materials used .. £'000	3,131	22,391	23,491	24,009	25,299	27,746
Value of production .. £'000	4,561	20,902	23,437	25,110	25,580	27,738
Total value of output .. £'000	7,823	43,786	47,439	49,670	51,441	56,074
Value of land and buildings .. £'000	3,755	7,277	9,414	10,763	12,112	13,739
Value of plant and machinery .. £'000	2,970	9,214	10,716	11,315	10,833	11,595
Horse-power of engines ordinarily in use h.p.	22,497	36,610	40,305	36,980	37,440	37,440

37. **Paper Making.**—Although the paper manufacturing industry has been established in Australia for many years, it was not until the manufacture of paper pulp from indigenous timber commenced in 1938-39 that any marked development occurred.

Plants producing pulp from eucalypt timber are operating in Victoria and Tasmania, while in South Australia pulp is being produced from locally-grown softwoods. The production of pulp rose from 6,000 tons in 1938-39 to 88,000 tons in 1946-47. It remained at about this level until 1949-50 but has since increased steadily to a total of nearly 217,000 tons in 1958-59.

The number of factories operating in 1958-59 comprised four in New South Wales, seven in Victoria, two in Queensland, one each in South Australia and Western Australia, and three in Tasmania. In Tasmania, newsprint, writing and printing papers are produced, and in the other States wrappings, other papers and boards. Particulars for this industry are shown in the following table.

PAPER MAKING, INCLUDING PULP MILLS: AUSTRALIA.

Items.	1938-39.	1954-55.	1955-56. (a)	1956-57. (a)	1957-58. (a)	1958-59. (a)
Number of factories ..	7	20	17	17	18.	18
Number of persons employed ..	1,961	7,611	7,480	7,903	8,088	8,406
Salaries and wages paid .. £'000	467	7,095	7,813	8,783	9,752	10,422
Value of power, fuel, etc., used .. £'000	201	2,560	2,735	2,996	3,131	3,341
Value of materials used .. £'000	1,096	17,474	18,963	22,419	22,903	25,025
Value of production .. £'000	1,005	18,294	17,330	19,383	23,910	25,817
Total value of output .. £'000	2,302	38,328	39,028	44,798	49,944	54,183
Value of land and buildings .. £'000	850	8,255	9,312	9,527	12,203	12,317
Value of plant and machinery .. £'000	1,713	18,050	18,640	18,141	21,835	22,482
Horse-power of engines ordinarily in use h.p.	31,548	157,948	164,123	170,382	174,557	179,364

(a) Excludes several establishments previously included, engaged in processing but not manufacturing paper.

38. Rubber Goods.—The following table shows particulars of this industry for each State during 1958–59 and for Australia for a series of years. Establishments engaged primarily in the retreading and repairing of tyres are excluded.

RUBBER GOODS, 1958–59.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories	43	56	14	7	2	..	122
Number of persons employed ..	6,654	6,529	1,136	(a)	(a)	..	15,227
Salaries and wages paid .. £'000	6,863	6,669	945	(a)	(a)	..	15,442
Value of power, fuel, etc., used .. £'000	933	1,057	114	(a)	(a)	..	2,205
Value of materials used .. £'000	16,143	16,418	2,608	(a)	(a)	..	36,339
Value of production .. £'000	9,333	14,065	2,153	(a)	(a)	..	27,108
Total value of output .. £'000	26,409	31,540	4,875	(a)	(a)	..	65,652
Value of land and buildings .. £'000	2,602	3,759	480	(a)	(a)	..	7,288
Value of plant and machinery .. £'000	3,080	3,855	407	(a)	(a)	..	7,632
Horse-power of engines ordinarily in use .. h.p.	53,823	60,379	8,723	(a)	(a)	..	126,901

(a) Not available for publication; figures are included in the total for Australia.

AUSTRALIA.

Items.	1938–39.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
Number of factories	37	108	117	120	118	122
Number of persons employed ..	1,779	13,645	14,480	14,859	15,017	15,227
Salaries and wages paid .. £'000	284	12,364	13,616	14,296	14,931	15,442
Value of power, fuel, etc., used .. £'000	35	1,759	1,831	2,007	2,131	2,205
Value of materials used .. £'000	455	32,733	38,329	34,378	36,044	36,339
Value of production .. £'000	431	18,982	21,211	23,246	24,782	27,108
Total value of output .. £'000	921	53,474	61,371	59,631	62,957	65,652
Value of land and buildings .. £'000	235	5,057	5,841	6,292	7,120	7,288
Value of plant and machinery .. £'000	194	5,285	7,156	6,645	7,839	7,632
Horse-power of engines ordinarily in use .. h.p.	5,915	98,836	106,720	114,562	120,602	126,901

39. Electric Light and Power Works.—(i) *Details of Industry.* The increased demand for electrical energy has been responsible for considerable development in electric light and power works during recent years. For further information on this subject see Chapter VII.—Electric Power Generation and Distribution. Particulars of the industry for each State during the year 1958–59 and for Australia for a series of years are shown below:—

ELECTRIC LIGHT AND POWER WORKS.

1958–59.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories	64	44	63	35	88	11	305
Number of persons employed ..	5,542	3,398	1,644	(a)	1,106	(a)	13,124
Salaries and wages paid .. £'000	5,758	3,851	1,650	(a)	1,181	(a)	14,011
Value of power, fuel, etc., used .. £'000	15,486	9,970	6,622	(a)	3,529	(a)	39,383
Value of materials used .. £'000	2,039	600	1,228	(a)	334	(a)	4,744
Value of production .. £'000	28,101	18,529	5,883	(a)	3,493	(a)	63,422
Total value of output .. £'000	45,626	29,099	13,733	(a)	7,356	(a)	107,549
Value of land and buildings .. £'000	47,066	19,551	9,483	(a)	4,096	(a)	122,460
Value of plant and machinery .. £'000	85,564	59,923	37,255	(a)	16,140	(a)	235,844
Generators installed—Kilowatt capacity '000 kW	2,276	1,310	712	(a)	330	(a)	5,531

AUSTRALIA.

Items.	1938–39.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
Number of factories	395	351	332	328	319	305
Number of persons employed ..	6,508	11,927	12,111	12,473	12,833	13,124
Salaries and wages paid .. £'000	1,977	11,457	12,497	13,571	13,467	14,011
Value of power, fuel, etc., used .. £'000	3,239	36,548	37,479	39,830	40,261	39,383
Value of materials used .. £'000	530	4,170	4,090	4,396	4,740	4,744
Value of production .. £'000	8,714	37,568	43,219	50,722	55,514	63,422
Total value of output .. £'000	12,483	78,286	84,788	94,948	100,515	107,549
Value of land and buildings .. £'000	8,388	60,120	71,680	100,011	104,512	122,460
Value of plant and machinery .. £'000	27,751	146,273	152,672	191,352	213,926	235,844

(a) Not available for publication; figures are included in the total for Australia.

Particulars of the types of engines and generators installed in Electric Light and Power Works and their rated horse-power are given on page 169.

(ii) *Production.* The generation of electricity in each of the States in 1938-39 and a series of years is shown in the following table:—

ELECTRIC LIGHT AND POWER WORKS: ELECTRICITY GENERATED.
(Million kWh.)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
1938-39 ..	1,948	1,223	387	256	307	567	4,688
1954-55 ..	5,951	4,152	1,658	1,119	703	1,589	15,172
1955-56 ..	6,505	4,633	1,786	1,204	753	1,794	16,675
1956-57 ..	7,008	5,037	1,937	1,315	782	2,210	18,289
1957-58 ..	7,595	5,320	2,133	1,581	829	2,338	19,796
1958-59 ..	8,275	5,704	2,305	1,583	876	2,456	21,199
1959-60(a) ..	9,197	6,203	2,542	1,945	926	2,531	23,344

(a) Preliminary—subject to revision.

40. *Gas-works.*—(i) *Details of Industry.* Gas works are in operation in the majority of important towns in Australia. The following table shows particulars of gas-works in each State for the year 1958-59 and for Australia for a series of years:—

GAS-WORKS.
1958-59.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of factories ..	37	27	16	3	3	2	88
Number of persons employed ..	1,337	1,584	351	(a)	182	(a)	3,917
Salaries and wages paid .. £'000	1,551	1,796	311	(a)	180	(a)	4,298
Value of power, fuel, etc., used .. £'000	2,023	398	44	(a)	137	(a)	2,712
Value of materials used .. £'000	5,654	5,800	1,057	(a)	602	(a)	14,996
Value of production .. £'000	5,959	3,319	1,003	(a)	336	(a)	11,239
Total value of output .. £'000	13,636	9,517	2,104	(a)	1,075	(a)	28,947
Value of land and buildings .. £'000	1,543	3,284	740	(a)	214	(a)	6,079
Value of plant and machinery .. £'000	7,175	13,333	2,100	(a)	1,611	(a)	28,127
Horse-power of engines ordinarily in use h.p.	18,640	6,357	2,874	(a)	1,204	(a)	46,743

AUSTRALIA.

Items.	1938-39.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Number of factories ..	107	97	95	94	88	88
Number of persons employed ..	2,931	4,103	4,087	4,138	3,783	3,917
Salaries and wages paid .. £'000	785	3,882	4,148	4,448	4,309	4,298
Value of power, fuel, light, etc., used .. £'000	251	2,291	2,297	2,591	2,720	2,712
Value of materials used .. £'000	1,872	15,187	15,350	15,598	15,030	14,996
Value of production .. £'000	2,694	9,103	9,272	9,894	10,577	11,239
Total value of output .. £'000	4,817	26,581	26,919	28,083	28,327	28,947
Value of land and buildings .. £'000	1,463	2,488	2,748	5,189	5,710	6,079
Value of plant and machinery .. £'000	7,498	19,134	19,828	27,667	26,823	28,127
Horse-power of engines ordinarily in use .. h.p.	17,905	33,389	42,082	44,373	44,913	46,743

(a) Not available for publication; figures are included in the total for Australia.

(ii) *Coal Used and Production.* The following table shows details for 1958-59:—

GAS-WORKS: COAL USED AND PRODUCTION, 1958-59.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Coal used '000 tons	829	513	190	158	(a)	(a)	1,761
Gas produced million cu. ft.	22,634	17,306	3,161	3,706	(a)	(a)	48,567
Gas sold	19,128	14,908	2,724	3,361	(a)	(a)	41,622
Coke produced (b) '000 tons	417	198	79	92	(a)	(a)	815

(a) Not available for publication; figures are included in the total for Australia.
2,210,621 tons of metallurgical coke were made in Coke Works in 1958-59.

(b) In addition

Since 1938-39, when the output of gas was 21 thousand million cubic feet, production has increased each year and reached 50,618 million cubic feet with an equivalent of 256,790 thousand therms (1 Therm=100,000 B.T.U.), in 1959-60.

CHAPTER VII.

ELECTRIC POWER GENERATION AND DISTRIBUTION.

This chapter is divided into three major parts. A.—Introduction, which deals briefly with the resources, generation and distribution, and future development of electric power in Australia; B.—The Snowy Mountains Hydro-electric Scheme; and C.—The origins, development, present situation and new projects of electrical systems in each Australian State and Territory. A Statistical Summary is appended.

It should be noted that the information contained in the chapter relates to situations existing and projects contemplated in 1960 and that it may be considerably affected by changes in policy or plans, or by developments in the projects themselves.

A. INTRODUCTION.

1. *Distribution of Population and Location of Power Resources.*—The geographical pattern of electric power generation and distribution in Australia has been affected by two main influences—the distribution of population, with a resulting distribution of industry, and the location of fuel and water resources.

The Australian population increased between 1939 and 1960 from approximately 6,968,000 to 10,281,000. The two principal centres of population and industry, the metropolitan areas of Sydney and Melbourne, make the greatest demands for electric power and their growth has been associated with the development of large deposits of coal located relatively close to the source of demand. This, together with the fact that the major water resources are also located in the south-eastern portion of the Commonwealth, materially influences the distribution of industrial population and the location of major electric power stations.

By far the most important source of energy used in the production of electric power in Australia is coal. At 30th June, 1959, thermal power equipment represented 76 per cent., hydro plant 20 per cent. and internal combustion equipment 4 per cent. of the total installed generating capacity.

Most of Australia is poorly supplied with water, only about 15 per cent. receiving an annual rainfall of 30 inches or over. This is confined largely to Tasmania and to the narrow coastal strip along the east coast of the mainland. The possibility of establishing large hydro stations in inland areas is, therefore, strictly limited by the lack of sufficient water.

The only region on the mainland of Australia high enough to receive reliable winter snowfall, and from which, therefore, reasonably constant water supplies throughout the year can be expected, is the mountain chain which stretches from the high plateaux of south-eastern New South Wales through to the north-eastern highlands of Victoria. The hydro-electric potential of this area is considerable, and plans have been formulated to develop more than 3,000,000 kW within the next 25 years. The two major construction projects in this area are the Snowy Mountains and Kiewa Schemes. Other hydro-electric potential does exist on the mainland on the rivers of the coastal areas of New South Wales and Queensland, but the amount there available is only small compared with the potential of the Alpine region. In Tasmania, hydro-electric resources have been estimated at about 50 per cent. of the total Australian hydro-electric potential. Whereas on the mainland the chief source of energy is coal, water occupies this position in Tasmania.

2. *Electric Power Generation and Distribution.*—(i) *Ownership of Undertakings.* At the beginning of this century, Australia's electrical undertakings were carried on mainly by private enterprise, but some measure of governmental control was exercised through various electric light and power Acts. This legislation was designed to provide standards of safety, and to define the scope and obligations of the private organizations engaged in producing electric power for sale. A trend towards public ownership commenced during the 1914–18 War and became more pronounced after the 1939–45 War. By 1960, all major

generating stations supplying the public were, in varying degrees, under the control of State statutory organizations constituted with the object of unifying and co-ordinating the generation and distribution of electricity supplies within the various States. There are, however, still a large number of small private and municipal enterprises generating power for supply to country towns, although central authorities are extending supply to these places wherever practicable. In many areas, however, it has been and remains the practice for central authorities to sell power in bulk to local distributing organizations which undertake reticulation.

In addition to the private, local government and statutory organizations which generate and/or distribute electricity for sale, there are numerous firms generating power for use in their own establishments, particularly those engaged in mining pursuits remote from the main centres of population. This chapter, however, is concerned mainly with the activities of central electric stations, and the power regularly produced for such internal consumption is, in any case, a relatively small proportion of the total power produced.

(ii) *Power Production and Generating Capacity.* In the period between 1938–39 and 1959–60, production of electric power in Australia increased by nearly 400 per cent. from 4,688 to 23,344 million kilowatt hours.

Since the 1939–45 War, industry and commerce have expanded rapidly, many new houses have been built and the population has increased by approximately 39 per cent. These factors, together with the extension of electricity supplies to rural areas and the increased use of domestic electric appliances, have all helped to bring about a position where the greatly increased demand for power cannot be satisfied by the existing installed capacity of central generating stations.

At 30th June, 1959, installed generating capacity in Australia totalled approximately 5.53 million kW compared with 4.88 million kW in 1958, an increase of over 13 per cent. In 1958–59, each kW of installed capacity produced an average of nearly 4,000 kWh. These figures are based on Commonwealth totals; figures for the States vary, depending on such factors as the distribution of demand, number of consumers, and type of equipment employed.

B. SNOWY MOUNTAINS HYDRO-ELECTRIC SCHEME.*

1. *Snowy Mountains Hydro-electric Power Act, 1949.*—In July, 1949, the Commonwealth Government passed the Snowy Mountains Hydro-electric Power Act establishing the Snowy Mountains Authority.

The functions and powers of the Authority as defined in the Act are:—

- (a) to generate electricity by means of hydro-electric works in the Snowy Mountains Area;
- (b) to supply electricity generated to the Commonwealth:—
 - (i) for defence purposes;
 - (ii) for consumption in the Australian Capital Territory.

The Authority is empowered also to supply to a State, or to a State Authority, electricity not immediately required for defence purposes or for consumption in the Australian Capital Territory.

To enable it to perform its functions, the Authority is given power to construct, maintain, operate, protect, manage and control works:—

- (a) for the collection, diversion and storage of water in the Snowy Mountains Area;
- (b) for the generation of electricity in that area;
- (c) for the transmission of electricity generated by the Authority;
- (d) incidental or related to the construction, maintenance, operation, protection, management or control of any works otherwise specified in the Act.

The Authority is constituted by a Commissioner appointed by the Governor-General. He is assisted by two Associate Commissioners also appointed by the Governor-General.

The Snowy Mountains Act is supported by a detailed Agreement between the States of New South Wales and Victoria and the Commonwealth with regard to the construction and operation of the Scheme, the distribution of power and water, charges to be made for

* See also Chapter VIII.—Water Conservation and Irrigation, page 259 of this issue and special detailed article in Official Year Book No. 42, pp. 1103–1130.

electricity, and other such matters. The Snowy Mountains Council, established under the terms of the Agreement and consisting of representatives of the Commonwealth, the Authority and the two States, directs and controls the operation and maintenance of the permanent works of the Authority and the allocation of loads to generating stations.

2. **Geography of the Area.**—The Snowy Mountains Area in south-eastern New South Wales is the only part of the continent in which altitudes exceed 7,000 feet and in which there is a substantial area over the altitude of 6,000 feet. The precipitation which results from the presence of this barrier on the line of the prevailing winter depressions of Antarctic origin amounts to as much as 120 inches a year in the vicinity of Mt. Kosciusko, the highest point in Australia. The drainage from the snowfields is practically all to three systems—those of the Murray and Murrumbidgee Rivers, which flow inland, and that of the Snowy River, which flows southward to Bass Strait.

3. **Description of the Scheme.**—(i) *General.* The Scheme involves two main diversions, the diversion of the Eucumbene, a tributary of the Snowy, to the Upper Tumut River and the diversion of the main stream of the Snowy River at Island Bend and Jindabyne to the Swampy Plain River. These two diversions divide the Scheme geographically into two sections, the Snowy-Tumut Development and the Snowy-Murray Development. The features referred to may be identified by reference to the map on page 239. For purposes of both power production and irrigation, it is necessary to provide a considerable degree of regulation of run-off and this will be achieved by the use of Lake Eucumbene formed by the construction of Eucumbene Dam to control the waters of the Eucumbene, Murrumbidgee and Tumut Rivers for the Snowy-Tumut Development and of the Snowy River for the Snowy-Murray Development.

(ii) *Snowy-Tumut Development.* This Development comprises works for the diversion and regulation of the waters of the Eucumbene, Upper Tooma, Upper Murrumbidgee and Upper Tumut Rivers and their combined development through a series of power stations down the length of the Tumut River. A major dam has been constructed on the Eucumbene River to create Lake Eucumbene with an ultimate usable storage of 3.5 million acre feet. The waters of the Upper Murrumbidgee River will be diverted into Lake Eucumbene by construction of a dam at Tantangara and a 10½ mile tunnel from Tantangara Reservoir. From Lake Eucumbene, the water will flow through a 14 mile tunnel to Tumut Pond Reservoir on the upper reaches of the Tumut River where it will join the waters of the Tumut River itself and the waters of the Tooma River diverted to Tumut Pond Reservoir by a diversion dam and a 9 mile tunnel. A feature of this 14 mile Eucumbene-Tumut Tunnel will be its use during periods of high flow to divert waters of the Tumut River from Happy Jacks Shaft or from Tumut Pond back to Lake Eucumbene for storage.

From Tumut Pond, water will be conveyed by pressure tunnel to Tumut 1 underground Power Station (capacity 320,000 kW), returned to the Tumut River and then conveyed by another pressure tunnel to Tumut 2 underground Power Station (capacity 280,000 kW), thence discharging into Tumut 3 Reservoir at Lobs Hole also on the Tumut River.

Tumut 3 and Tumut 4 Power Stations will be constructed between Tumut 3 and Blowering Reservoirs. Blowering Dam is to be constructed by the State of New South Wales and will provide for the regulation of power station discharges for use for irrigation in the Murrumbidgee valley. The Authority will, however, construct another power station at the foot of this dam to make use of irrigation releases for power purposes.

(iii) *Snowy-Murray Development.* The principal features of the Snowy-Murray Development are the diversion of the main stream of the Snowy River by tunnel westwards through the Great Dividing Range into the Swampy Plain River in the catchment of the Upper Murray and the development of power on the western slopes of the Alps. The main works of the Development will be:—

- (a) The construction of a tunnel from the Snowy River near Island Bend through the Great Dividing Range to Geehi Reservoir on the Geehi River and two power projects between Geehi Reservoir and the Swampy Plain River near Khancoban. The power stations associated with these two power projects, Murray 1 and Murray 2, will be the Scheme's largest stations and will have a combined capacity of 1,200,000 kW.
- (b) Construction of a tunnel from a small dam on the Snowy River near Island Bend to Eucumbene Dam to carry Snowy water to Lake Eucumbene for storage at times of high river flows. When river flows are lower than average,

this stored water will be returned towards Island Bend and thence through the Snowy-Geehi Tunnel to Geehi Reservoir and Murray 1 and Murray 2 Power Stations.

- (c) The construction of a dam on the Snowy River near Jindabyne to store the residual flow of the Snowy and Eucumbene Rivers downstream from Island Bend and Eucumbene Dams, including the flows of major tributaries, the Crackenback and Mowamba Rivers, and the construction of a pumping plant, pipeline and tunnel to lift this water from Jindabyne Reservoir to the Snowy-Geehi Tunnel near Island Bend where it will join the flow to the Geehi Reservoir for use through Murray 1 and Murray 2 Power Stations.

Associated with the main Snowy-Murray diversion are power developments of the Upper Snowy and Upper Geehi Rivers. The Upper Snowy proposals provide for a series of three power projects utilizing the fall in the waters of the Snowy River from Kosciusko Reservoir at elevation 5,800 feet to Island Bend at elevation 3,900 feet. One of these, the Guthega Project, came into operation in February, 1955.

On the western side of the Divide, the waters of the Upper Geehi River and its tributary, Windy Creek, falling from an altitude of 5,200 feet to Geehi Reservoir at elevation 3,600 feet, will provide power in Windy Creek Power Station.

4. **Utilization of Power.**—The future electric power plants on the mainland of Australia will be predominantly thermal or thermo-nuclear installations and in an electrical system in which the greater part of the energy is generated in thermal plants it is usually found that the hydro installations operate to the best advantage on peak load. However, the existing New South Wales and Victorian systems include a proportion of relatively old and less efficient installations which, for reasons of fuel economy, are also best used for the production of peak load power. Therefore, in order to utilize the potential of the Snowy Mountains Scheme most effectively, it is proposed to arrange the order of development so that the early stations will operate, initially, somewhat below the peak of the system load, with a progressive change to predominantly peak load operation as construction proceeds and as the load increases in magnitude.

The Snowy Mountains Scheme is situated geographically about midway between the principal load centres of Sydney and Melbourne and will be connected to these centres by 330,000 volt transmission lines. It will, consequently, be in a strategic position to take advantage of the diversity in the power requirements of these two load systems, a most important factor in so far as it affects the economy of operation of the supply systems of the two States.

Although most of the output from the Scheme will go to the States of New South Wales and Victoria, the Commonwealth Government has the right to draw from the Scheme its requirements of power and energy for the Australian Capital Territory and for defence purposes. For convenience, the Commonwealth's share of power and energy will be drawn from the New South Wales transmission network by an exchange arrangement between the Commonwealth and the Electricity Commission of New South Wales. After fulfilling the Commonwealth's requirements, the remaining power and energy from the Scheme will be divided between the States of New South Wales and Victoria in the ratio of 2 : 1.

5. **Progress and Future Programme.**—The first power station in the Scheme, Guthega, of 60,000 kW initial capacity, came into operation in February, 1955. This was followed by Tumut 1 Power Station, total capacity 320,000 kW, which came into operation progressively during 1959. Eucumbene Dam, which provides the major regulating storage for the Scheme, was completed in May, 1958, and water now being stored in Lake Eucumbene will be used later for power generation through the Tumut Power Stations. Completion of the Eucumbene-Tumut Tunnel in June, 1959, made possible the first major trans-mountain diversion of water. Construction is at present in progress on the second of the Tumut River Power Stations, Tumut 2, which, with a capacity of 280,000 kW, is planned to come into operation in 1962. Tantangara Dam on the Murrumbidgee River was completed in February, 1960, and water is now being stored in the reservoir for diversion to Lake Eucumbene through the Murrumbidgee-Eucumbene Tunnel which was completed early in 1961. The Tooma-Tumut Pond Tunnel was also completed early in 1961.

The next works to be constructed will be parts of the main Snowy-Murray Development and it is anticipated that the first production of power from the Murray 1 Power Station and the first trans-mountain diversion of the water from the Snowy River to the Murray will occur during 1966.

C. STATES AND TERRITORIES.

§ 1. New South Wales.

1. **General.**—In Official Year Book No. 39, an account was given, in some detail, of the origin and development of electricity generation and distribution in New South Wales, describing in particular the growth of the systems of the Sydney County Council, the Department of Railways, the Electric Light and Power Supply Corporation Ltd., the Southern Electricity Supply and the Clarence River County Council (now the Northern Rivers County Council). A description was also given of the legislation which constituted The Electricity Authority of New South Wales and the Electricity Commission of New South Wales as well as legislation existing prior to their constitution. At present, the three main Acts governing electricity supply in New South Wales are:—

- (i) The Local Government Act, 1919, which lays down the various rights and responsibilities of local government bodies in the establishment and operation of electricity trading undertakings.
- (ii) The Electricity Development Act, 1945–1957, which established The Electricity Authority of New South Wales as the body responsible for the co-ordination of electricity supply throughout the State.
- (iii) The Electricity Commission Act, 1950–1957, which constituted the Electricity Commission of New South Wales as the major generating authority and not subject to the provisions of the Electricity Development Act.

2. **Organization.**—(i) *The Electricity Commission of New South Wales.*—The Commission, which was constituted under the Electricity Commission Act, 1950–1957, consists of five members of whom one is full-time Chairman and one is full-time Vice-Chairman. In its administration, the Commission is directly responsible to the Minister for Local Government.

When the Commission was established, 93 per cent. of the State's power requirements were generated by four bodies—the Sydney County Council, the Department of Railways, the Southern Electricity Supply (a division of the Department of Public Works) and the privately-owned Electric Light and Power Supply Corporation Ltd. The Electricity Commission Act, 1950–1957, and the Electricity Commission (Balmain Electric Light Company Purchase) Act, 1950, provided for the acquisition of the power stations and main transmission lines of those bodies. The transfer of the power stations and transmission lines of all these undertakings has now been effected. On 1st July, 1956, the Commission acquired the power station and bulk supply system of the Tamworth City Council, which supplied in bulk to a number of distributing bodies in the north of the State.

The main function of the Commission is the generation and transmission of electricity which it sells in bulk to distributing authorities (mainly local government bodies) throughout a large part of the State, to the government railways and tramways, and to certain large industrial consumers. As the major generating authority, it is also responsible for the development of new power sources. An important exception is the hydro-electric potential of the Snowy Mountains region which is being developed by the Snowy Mountains Hydro-electric Authority, a Commonwealth Government body.

(ii) *Other Electricity Supply Authorities.* The retail sale of electricity to the public is, in general, carried out by separate electricity supply authorities—municipal and shire councils, electricity county councils (consisting of groups of shire and/or municipal councils) or private franchise holders. At 1st August, 1960, there were 63 of these supply authorities throughout the State of which 20 also generated part or all of their power requirements. The majority of country power stations are small oil engine plants which are becoming increasingly costly to operate. Consequently, they are gradually being closed down as the main transmission network is extended further afield.

Over the past few years, there has been a distinct trend towards the consolidation of supply areas, many of which have been regarded as being too weak individually to form satisfactory areas for distribution. Generally these consolidations have taken the form of a county district consisting of a number of neighbouring shire and municipal areas grouped for electricity supply purposes only and administered by a county council of representatives elected by the constituent shire and municipal councils.

It is interesting to note that, of the 225 shires and municipalities in New South Wales, 207 are included in one or other of the 36 electricity county districts. Thirty-three of these county districts have been constituted since 1945. The largest of the county councils is the Sydney County Council which at 30th June, 1960, was supplying 470,322 consumers in the Sydney Metropolitan Area. Unlike the other county councils, which are constituted under the provisions of the Local Government Act, 1919, the Sydney County Council was specially constituted under the Gas and Electricity Act, 1935.

(iii) *The Electricity Authority of New South Wales.*—The Electricity Authority was constituted under the Electricity Development Act, 1945–1957, for the stated purpose of promoting and regulating the co-ordination, development, expansion, extension and improvement of electricity supply throughout the State. The Authority, which is a regulatory body only, consists of seven members of whom one is a full time Chairman. Like the Commission, it is responsible to the Minister for Local Government.

The main functions of the Authority are as follows:—

- (a) *Distribution.* Under the Act, the approval of the Authority is required, *inter alia*, for the establishment or acquisition of an electricity trading undertaking by a local government council, for the granting or renewing by such a council of electricity franchise agreements or corresponding agreements with other councils, and for the giving or taking of bulk supplies of electricity. It also has power to formulate proposals for the establishment of county councils.

In exercising these powers, the Authority is mainly concerned with seeing that distributing authorities are sufficiently strong to provide an economical, efficient and satisfactory service. Its most important activities in this regard are in investigating supply areas and in making recommendations to the Minister for the consolidation of such areas into county districts. Many of the new county districts referred to earlier have been formed largely as a result of the Authority's advice.

- (b) *Rural Electrification.* The Authority administers the rural electricity subsidy scheme under which rural electrification throughout the State is progressing very rapidly (*see para. 4, p. 232*).
- (c) *Safety.* The Electricity Development Act, 1945–1957, contains provisions for the making of regulations relating to most aspects of safety and these powers are being used more and more extensively. Safety regulations now in force cover such matters as inspection of consumer's installations, licensing of electricians and electrical contractors, approval of electrical appliances, safety of linesmen and overhead line construction.
- (d) *Generation and Transmission.* The approval of the Authority is required for the establishment or extension of power stations and main transmission lines (with the exception of those of the Electricity Commission).

3. *Generation and Transmission.*—(i) *General.* Except in the Snowy Mountains district and in one or two other areas, New South Wales is lacking in major water power potential and for the generation of electricity the State is, therefore, dependent mainly on steam power stations. During the year ended 30th June, 1960, coal-fired stations generated 93.0 per cent. of the State's energy requirements, hydro-electric stations 6.4 per cent. and internal combustion plants 0.6 per cent.

The proportion of power generated in the hydro-electric stations will increase considerably with the future plant development of the Snowy Mountains Scheme by the Commonwealth Government, but at no stage of its development will the Scheme supply more than 15 per cent of the State's energy requirements. Coal-fired steam power stations, therefore, will continue to supply the greater part of requirements for the foreseeable future.

(ii) *Major Generating Stations.* In New South Wales, the generation of electricity has followed the general world trend towards large centralized power stations supplying large areas through inter-connected transmission networks. The greater part of the coal-fired generating plant is now concentrated within the bounds of the industrial centres of Sydney, Newcastle and Wollongong, where most of the population is also located.

As at 30th June, 1959, the major power stations of the State system of the Electricity Commission of New South Wales and their installed capacities were as follows:—*Steam*—Bunnerong "A" and "B" (Sydney), 375,000 kW; Pyrmont "B" (Sydney), 200,000 kW; White Bay (Sydney), 172,000 kW; Ultimo (Sydney), 80,000 kW; Balmain (Sydney), 107,000 kW; Port Kembla, 60,500 kW; Zarra Street (Newcastle), 50,000 kW; Tallawarra (Lake Illawarra), 120,000 kW; Wangi (Lake Macquarie), 270,000 kW; Wallerawang (near Lithgow), 120,000 kW; Muswellbrook, 30,000 kW; Lithgow, 27,000 kW; Maitland,

20,000 kW; Penrith, 20,000 kW; Liverpool, 20,000 kW; Tamworth, 27,000 kW; *Hydro*—Hume (near Albury), 50,000 kW; Warragamba (near Penrith), 50,000 kW; Burrinjuck (near Yass), 20,000 kW. There were also various other steam, hydro and internal combustion stations aggregating 67,270 kW. The total installed capacity of the Electricity Commission's system was 1,885,770 kW.

It will be seen, therefore, that the greater part of the Commission's generating plant is concentrated within a hundred mile radius of Sydney—the largest stations outside this area being located at Hume, capacity 50,000 kW, at Muswellbrook, capacity 30,000 kW and at Tamworth, capacity 27,000 kW.

(iii) *Inter-connected Network.* The retailing of electricity to 97 per cent. of the population of New South Wales is in the hands of local distributing authorities who obtain electricity in bulk from the inter-connected supply system of the Electricity Commission of New South Wales. This inter-connected system of 330 kV, 132 kV and 66 kV and some 33 kV and 22 kV transmission lines links the Commission's power stations with the load centres throughout the eastern portions of the State, extending geographically up to 400 miles inland.

At 30th June, 1960, there were in service 1,200 miles of 132 kV transmission line (including 167 miles built for eventual operation at 330 kV) and over 3,000 miles of 66 kV and lower voltage lines (including 314 miles built for eventual operation at 132 kV and 85 miles built for eventual operation at 330 kV).

Superimposed upon the 132 and 66 kV network will be a powerful 330 kV trunk system extending from the Snowy Mountains Hydro-electric Scheme in the South through Wollongong, Sydney and Newcastle to Armidale in the North. At 30th June, 1960, the section, 85 miles long, between the Snowy Mountains Upper Tumut Switching Station and the Commission's Yass 330/132 kV Sub-station had completed its first year of operation, conveying power from the Snowy Mountains Scheme to the Commission's inter-connected system and linking the inter-connected systems of the Electricity Commission of New South Wales and the State Electricity Commission of Victoria at the Upper Tumut Switching Station. A further 252 miles of this 330 kV transmission network has been built, but these sections are operating at lower voltages for the time being.

The installed transformer capacity at the Commission's 108 bulk supply sub-stations is 3,697,500 kVA.

(iv) *Separate Systems and Total State Installed Capacity.* There are a number of small isolated plants which have not yet been interconnected with the main network and which supply isolated towns and villages. Some councils along the Victorian border receive bulk supplies from Victorian authorities.

A number of local government bodies have undertaken the development of independent power stations. Of these, the more important are:—The Northern Rivers County Council which has constructed a steam power station at Koolkhan (near Grafton) with an installed capacity of 25,750 kW, and the North-West County Council, which has established a 12,500 kW steam power station on the Ashford coalfield.

The aggregate installed capacity for the whole of the New South Wales systems and isolated plants was 1,953,293 kW as at 30th June, 1960.

(v) *Future Development.* The major new thermal stations now being developed on the coalfields will become the main base load centres for the northern, southern and western regions respectively. At Vales Point on Lake Macquarie, near Newcastle, work has commenced on a large thermal station with a planned capacity of about 1,000,000 kW. The initial installation will comprise two 200,000 kW generating units. Tenders have been invited for plant for the second stage of the station which will comprise one 275,000 kW generating unit. At Wangi, also on Lake Macquarie, five units with a combined capacity of 270,000 kW are operating and work is proceeding to install a further unit which will bring the capacity of this station to 330,000 kW.

At Tallawarra on Lake Illawarra, near Wollongong, work on extensions involving the installation of two 100,000 kW generating units is progressing. When completed, the capacity of this station will be 320,000 kW. At Wallerawang, four 30,000 kW units are operating and work is proceeding on the installation of a further two 60,000 kW units which will increase the capacity of the station to 240,000 kW.

A small hydro-electric generating unit (6,000 kW) is being installed at the Keepit Dam near Gunnedah.

The development of the 330 kV main system is expected to be rapid in the next few years. In addition to the eighty-five miles of 330 kV line between the Snowy Mountains and Yass now operating at 330 kV and the other elements totalling 252 miles which have

already been built and are operating at lower voltages for the present, a section 42 miles long is being built between a new 330 kV substation just south of Sydney and a new 330 kV switching station at Dapto for the connexion of the Tallawarra Power Station extensions. Contracts have been let for the construction of a further section, 110 miles long, which will duplicate the existing line between the Snowy Mountains, Yass and Dapto. This work will permit full 330 kV operation of the whole of the link between the Upper Tumut Switching Station and Sydney South when the next large hydro-electric power station at T2 is completed in 1961. Other extensions of the 330 kV system about to commence include two lines (84 miles) from the Sydney South 330 kV substation to a new substation just north of Sydney and from there to the Commission's new Power Station at Vales Point. This work is expected to be completed in 1963.

New construction of 132 kV and 66 kV transmission lines will extend the system geographically within the next two or three years to South Grafton in the north, Burren Junction in the north-west and Hay in the west. The mileage of these and other lines of such voltages to be built within this period exceeds 400 miles. In the same period the Commission will build three new 330 kV substations, eleven new 132 kV substations and a number of substations of lower voltages. The additional transformer capacity resulting from this work and the augmentation of existing substations will be of the order of 3,000,000 kVA.

(vi) *Hydro-electricity.* The greater part of the hydro-electric potential of New South Wales is concentrated in the Snowy Mountains Area (*see* Snowy Mountains Hydro-electric Scheme, p. 226). Apart from this area, there are in operation the new hydro-electric stations at the Warragamba Dam (50,000 kW) and Hume Dam (50,000 kW), the 20,000 kW station at the Burrinjuck Dam, and the 7,500 kW station at the Wyangala Dam. The output of Warragamba Power Station is dependent upon the availability of water surplus to the requirements of the Sydney Metropolitan Area, and the output of the other stations on the release of water for irrigation.

Of the remaining hydro installations, the largest is that of the New England County Council on the Oakey River, a tributary of the Macleay River, which has a capacity of 5,250 kW.

The Northern Rivers County Council operates a hydro-electric power station on the Nymboida River, a tributary of the Clarence River. This station has a capacity of 4,650 kW.

The Bega Valley County Council has constructed a hydro-electric scheme at Brown Mountain utilizing the headwaters of the Bomboka River. This installation has a capacity of 3,950 kW.

The Mullumbimby Municipal Council has in operation two 150 kW hydro units on Wilson's Creek, a tributary of the Richmond River.

4. Rural Electrification.—When The Electricity Authority of New South Wales was constituted in 1946, one of its first tasks was to devise a scheme for subsidizing the cost of rural electrification. At that time, only 16,000 New South Wales farms were being served with electricity—less than one-quarter of those within reasonable reach of public electricity supply systems. In August, 1946, a subsidy scheme was approved by the Government and put into immediate operation. Under this scheme, local electricity suppliers receive subsidies from The Electricity Authority towards the cost of new rural lines. The amount of subsidy is based on the estimated cost of the proposed extension and the number of consumers able to be served by the new lines. In order that the funds available for subsidy purposes might be used to the best possible advantage, the scheme was designed to encourage local electricity supply authorities to construct the more economic extensions first. This was achieved by fixing a limit to the cost eligible for subsidy. Originally this limit was £250 per consumer when averaged over the cost of the whole extension but the limit was raised to £400 in December, 1953. Some subsidy was paid on higher cost extensions but the excess over an average of £400 was not subsidized.

To assist supply authorities in extending supply to less populated, and thus high-cost, areas of the State, the subsidy scheme has been extended (from May, 1959) to provide for payment of increased subsidy in respect of extensions where the average capital cost per consumer lies within the range of £600–£800.

Between August, 1946, and October, 1960, about 37,100 miles of new distribution lines in rural areas were erected at a cost of over £25,000,000. These lines served 46,300 farms and 28,700 other rural consumers. During the same period, the percentage of farms connected rose from 22 per cent. to 86 per cent. At 31st October, 1960, The Electricity Authority was committed to the payment of £11,079,154 in subsidies, of which £4,924,189 had been paid.

§ 2. Victoria.

1. *General.*—In Official Year Book No. 39, a detailed description is given of the development of electricity generation in the cities of Melbourne, Geelong, Bendigo and Ballarat up to the time of transfer of control of electricity undertakings in those cities to the State Electricity Commission of Victoria. An account is also given of the events culminating in the establishment of the Commission in 1919, and of the early developments in the Commission's undertakings.

2. *State Electricity Commission of Victoria.*—(i) *Power and Fuel Authority.* Since it began operating in 1919, the State Electricity Commission has expanded and co-ordinated the production and supply of electricity on a State-wide basis to the point where its system now generates almost all the electricity produced in Victoria and serves about 97 per cent. of the population through a supply net-work covering more than three-quarters of the populated area of the State.

Development of Victoria's electricity system is based on the utilization for both power and fuel of Victoria's extensive brown coal resources in the Latrobe Valley in eastern Gippsland, with supplementary development of the hydro-electric potential of north-eastern Victoria. Victoria is entitled to one-third of the electricity from the Snowy Mountains Hydro-electric Scheme, after the Commonwealth has taken the power it needs for the Australian Capital Territory and within the Snowy Mountains area. Output from the Snowy scheme was made available to Victoria in the latter half of 1959. Victoria also shares with New South Wales in the electricity generated at Hume Hydro Station on the River Murray. Two-thirds of the State's electricity is generated from brown coal, either used in its raw state or manufactured into higher quality fuel in the form of brown coal briquettes. Nearly ninety-nine per cent. of the brown coal and all the briquette fuel are supplied by undertakings which the Commission itself owns and operates. Output of brown coal in 1959–60 from the three open cuts at Yallourn, Yallourn North and Morwell totalled 13,249,496 tons, of which 8,899,324 tons were used in the Commission's own power stations, and 3,594,636 tons were manufactured into 974,670 tons of brown coal briquettes, 33 per cent. of the briquette output then being used for electricity production in metropolitan and provincial steam power stations.

The two functions, generation of electricity and production of fuel, are closely integrated. Apart from the large proportion of brown coal and briquette fuel directly consumed in the power stations, the actual process of briquette manufacture results also in large-scale generation of electricity, since the steam needed for processing the raw coal in the briquette factory is first used to operate turbo-generators in the power plant which functions in association with the briquette works.

(ii) *Status and Powers.* Constituted by Act of the Victorian Parliament, the State Electricity Commission is a semi-governmental authority administered since 1921 by a full-time Chairman and three part-time Commissioners. The principal duty of the Commission is to co-ordinate and extend on an economic basis the supply of electricity throughout Victoria. For this purpose, it is vested with power to erect, own and operate power stations and other electrical plant and installations, supply electricity retail to individual consumers or in bulk to any corporation or public institution, acquire and operate electricity undertakings, develop, own and operate brown coal open cuts and briquetting works, and develop the State's hydro-electric resources. From its own revenues, which it controls, the Commission must meet all expenditure in the operation of its power, fuel and subsidiary undertakings, and all interest and other charges incurred in the service of its loans and other capital commitments.

The Commission is the controlling authority for all electrical undertakings in Victoria. It is responsible for the registration of electrical contractors, the licensing of electrical mechanics, the control of installation methods and material and the testing and approval of electrical equipment and appliances. Incidental to its main operations, the Commission owns and operates the tramway systems in Ballarat and Bendigo. For the accommodation of its employees at Yallourn, the Commission owns and administers the town of Yallourn and owns large housing estates in the surrounding area. In the Kiewa hydro-electric works area, it has built the two townships of Mount Beauty and Bogong, municipal administration of the former now being vested in the Shire of Bright.

(iii) *Electricity Supply.* At 30th June, 1960, consumers in Victoria served by the State system totalled 869,331. Outside the State system, there were 20,156 other consumers served by local country undertakings. The system supplies all the Melbourne metropolitan area and nearly 1,600 other centres of population.

The Commission sells electricity retail in all areas except part of the metropolitan area, where it sells in bulk to eleven municipal undertakings which operate as local retail supply authorities under franchises granted before the Commission was established. Bulk supply is also being provided at present to several New South Wales municipalities and irrigation settlements bordering the River Murray. Rural electrification is now about 87 per cent. completed, the over-all plan to extend the State system to all populated regions of Victoria having made rapid progress during recent years. Consumers served by the State system outside Melbourne metropolitan area (368,421) have more than doubled, and the number of farms connected to supply (44,079) has almost trebled in the past 10 years. Of the new consumers connected to supply each year, more than two-thirds are outside the metropolitan area. New farm connexions average nearly 3,000 a year.

The Commission's retail consumers totalled 679,973 at 30th June, 1960. Retail supply is administered through the metropolitan branch, seven extra-metropolitan branches (namely Ballarat, Eastern Metropolitan, Geelong, Gippsland, Midland, North Eastern and South Western) and the North Western Region, which comprises Bendigo branch and the two sub-branches based on Mildura and Horsham (Wimmera). At 30th June, 1960, there were branch and district supply offices in 81 towns in Victoria.

(iv) *Electricity Production.* Electricity generated in the State system or purchased by it totalled 6,112 million kWh in 1959-60 or 99 per cent. of all Victoria's electricity. The system comprises a series of thermal and hydro-electric power stations. Inclusive of generator capacity both within the State and available to the Victorian system from outside the State, the total installed generator capacity at 30th June, 1960, was 1,484,000 kW. All but two small regional power stations are interconnected, and feed electricity into a common pool for general supply. The major power station in this interconnected system is the brown coal burning power station at Yallourn, which alone generates nearly half of Victoria's electricity. Other power stations in the interconnected system comprise the important brown coal burning power station at Morwell, steam stations in Melbourne (Newport, Richmond and Spencer Street), Geelong and Ballarat; hydro-electric stations at Kiewa and Eildon, and on the Rubicon and Royston Rivers, near Eildon; and internal combustion stations at Shepparton and Warrnambool. All within Victoria are Commission owned, except Spencer Street Power Station, which remains the property of the Melbourne City Council, although operated as a unit in the interconnected system. A new 330,000 volt transmission line links the Victorian system with the Snowy Mountains undertaking, and also provides facilities for interconnexion between the Victorian and New South Wales State generating systems. Also linked with the Victorian interconnected system is the hydro station at Hume Dam on the River Murray. This power station is operated by the Electricity Commission of New South Wales. Output and operating costs are shared by Victoria and New South Wales.

In meeting the total demand on the system, which fluctuates throughout the day and from month to month, each group of stations in the interconnected system, whether steam, hydro or internal combustion, is assigned a predetermined function dependent upon the availability of power from each group and the over-all economics of generation. The various stations are utilized in the combination that will meet the system load most economically at a given time. This procedure results in an arrangement of the system on the following general lines:—

- (a) Yallourn Power Station, owing to the low cost of extraction and ample supply of raw brown coal, is a base-load station, and is operated continuously at its maximum economic capacity. The new Morwell Power Station which like Yallourn, burns raw brown coal, is also a base-load power station.
- (b) Metropolitan and provincial steam stations and provincial internal combustion stations situated close to load centres are designed to operate as peak load stations to assist in meeting the heavy, short period load.
- (c) Hydro stations are operated in accordance with the availability of water. Their primary function is to provide peak load power. As the basic purpose of Eildon reservoir is to provide water for irrigation, generation of electricity is mainly governed by irrigation requirements, but provision has been made for limited operation of the power station in winter when electricity requirements are at their heaviest and there is no irrigation demand for water. Hume Hydro Station also operates on water released for irrigation and no regular output of electricity can be expected during the non-irrigation months in the winter.

Commission power stations not yet connected with the rest of the State system comprise the two steam stations (Redcliffs and Mildura) serving the Mildura region.

(v) *Transmission and Distribution.* The electrical transmission and distribution system in the State supply network at 30th June, 1960, comprised 32,331 miles of power-lines, 14 terminal receiving stations and nearly 24,000 distribution sub-stations. Main transmission is by 220 kV, 132 kV and 66 kV power lines which supply the principal distribution centres and also provide interconnexion between the power stations. The 330 kV line connecting the Victorian system with the Snowy Mountains Scheme via Dederang, near Kiewa, came into service in November, 1959. The 220 kV system now extends from Yallourn to Melbourne, Melbourne to Kiewa and Kiewa to Shepparton. Two further sections of the 220 kV system—Melbourne to Colac and Shepparton to Bendigo—are operating temporarily at 66 kV. From Yallourn there is also a 132 kV transmission line to Melbourne. The 66 kV lines radiate from Melbourne to Geelong and main centres in the South West, Ballarat and Horsham, and Bendigo and Charlton, and also to Benalla and other main centres in the North East. Further 66 kV lines radiate from Yallourn to main centres in Gippsland.

(vi) *Future Development.* With the virtual completion in the 1960–61 financial year of works in hand at the Kiewa hydro-electric undertaking, major new construction will be concentrated on the development of the Commission's brown coal undertakings at Yallourn and Morwell in the Latrobe Valley and the erection of a large new brown coal burning power station (Hazelwood) near Morwell. At the same time, the Commission will continue its programme of rural electrification, extension of the State system (particularly in western and north western Victoria) and reinforcement of supply by extending the 220 kV system from Bendigo north-westward to Kerang and subsequently to Redcliffs, near Mildura, and also to Ballarat and Geelong where connexion will be made with the existing Melbourne-Colac line, thus completing a 220 kV circle around Central Victoria.

Yallourn Power Station is being greatly enlarged. An extension of 240,000 kW capacity is due for completion in 1962, which will complete the Yallourn power generation development, except for the eventual replacement of 175,000 kW of old plant probably with one generating unit of about 200,000 kW capacity. Enlargement of the power station will require a corresponding expansion in production of brown coal at Yallourn. New dredger plant will increase annual output at the Yallourn open cut to over 12 million tons in the 1960–61 financial year.

At Morwell, six miles from Yallourn, the Commission is developing a second brown coal power and fuel project. The new project comprises a large brown coal open cut and a major power station operating in association with a large briquetting plant. Some of the electricity generated at Morwell is needed to operate the briquette works, but most of the output of the power station is transmitted through Yallourn to metropolitan terminal stations for general supply through the State network. The power station began operation at the end of 1958. Installed generator capacity, now 110,000 kW, will be increased to 170,000 kW in the 1962–63 financial year. Commercial production of briquettes (using brown coal delivered by the Commission's own interconnecting railway from the Yallourn open cut) began in December, 1959. The briquette works (completed in September, 1960) have a production capacity of approximately 1,500,000 tons of briquettes a year. The Commission's new Hazelwood Power Station will be located a short distance south of Morwell. It will operate on raw brown coal fuel supplied by belt conveyor direct from the Morwell open cut. The power station will have a capacity of 1,200,000 kW and will comprise six turbo-generators each of 200,000 kW capacity. Hazelwood will be built in stages. Contracts have been placed and site work begun for the first two generating units (400,000 kW) and the related boiler plant. The first turbo-generator is due to be in service in 1964 and the second in 1965. Succeeding units are scheduled to be in service in 1967, 1968, 1970 and 1971. Power generated at Hazelwood Power Station will be transmitted at high voltage to Melbourne metropolitan terminal stations for distribution through the State supply network.

(vii) *Hydro Electricity.* At the Kiewa hydro-electric undertaking, in addition to the two completed stations, totalling 87,600 kW capacity, a third power station of 96,000 kW capacity, already in partial operation at 30th June, 1960, was due for completion in the summer of 1960–61.

3. **Local Country Electricity Undertakings.**—At 30th June, 1960, there were 33 independent electricity undertakings in country centres in Victoria generating and distributing their own local supply. Most of these undertakings were in the far south-west, west and north-west of the State. Under the State Electricity Commission's rural electrification programme, almost all the independent local country undertakings will ultimately be acquired and absorbed into the State system. For the year 1959–60, the total production of the independent undertakings was 45 million kWh. The number of consumers at 30th June, 1960, was 20,156. The operation of the independent undertakings is governed by the Electric Light and Power Act, 1958, which the State Electricity Commission administers.

§ 3. Queensland.

1. **General.** In Official Year Book No. 39, an account is given of the growth of electricity generation in Queensland, with particular reference to the City Electric Light Co. Ltd. of Brisbane (now the Southern Electric Authority of Queensland), the Brisbane City Council and the Toowoomba Electric Light and Power Co. Ltd.

The first of these organizations supplies a large part of Brisbane's electric power requirements, and those of a considerable rural area in the south-eastern corner of the State, from modern power stations at Bulimba, a suburb of Brisbane. Capacity is 95,000 kW at Bulimba "A", 120,000 kW at Bulimba "B", and 10,000 kW, "packaged plant" at Abermain (near Ipswich). The output from a 3,200 kW hydro-electric unit installed at Somerset Dam near Brisbane is also fed into the Southern Electric Authority system. With these plants, 763 million kWh were generated in 1958–59 while the total number of the Authority's consumers at 30th June, 1959, was 118,793.

The Brisbane City Council's electrical undertaking and power production in 1958–59 had an installed capacity of 205,000 kW comprising 75,000 kW at New Farm and 120,000 kW at the new Tennyson Station, plus a 10,000 kW "packaged plant" also erected at Tennyson. Units purchased and generated amounted to 656 million kWh, and there were 133,278 consumers connected.

The Toowoomba Electric Light and Power Co. Ltd., which commenced operations in 1905, has now been absorbed by the Southern Electric Authority of Queensland.

The generation and distribution of electric power in Queensland had, until the last 20 years, tended to lag behind developments in this field in other States of Australia. The comparatively slow growth in the production and consumption of electricity can be attributed to some extent to the absence, prior to 1938, of a central statutory authority constituted to undertake the functions of co-ordinating, unifying and controlling the production and transmission of electric power. In addition, Queensland's vast area, coupled with a low population density, made large-scale rural electrification an uneconomic proposition, except in the south-eastern portion of the State, which surrounds the major centres of industry and population.

Before establishment of the Regional Electricity Boards in 1945, no attempts had been made to unify or co-ordinate electricity supplies outside of south-eastern Queensland, and rural electrification, apart from reticulation within certain townships, was practically unknown.

2. **Royal Commission on Generation and Distribution of Electric Power in Queensland, 1936.**—On 5th December, 1935, the Queensland Government appointed a Royal Commission to inquire into and make recommendations on matters relating to the generation and distribution of electric power in Queensland. An account of the results of its investigations and of the alternative proposals put before it will be found on page 1182 of Official Year Book No. 39.

3. **The State Electricity Commission of Queensland.**—The State Electricity Commission of Queensland commenced to function during January, 1938. Its main powers were to secure a proper and efficient supply of electric power, review tariffs, grant licences to supply

electricity, secure the safety of the public, and control and advise electrical undertakings generally. It was thus a controlling authority as distinct from an operating authority. Details of its growth and development may be found in earlier issues of the Official Year Book (*see* No. 44, p. 284). Since its inception, the Commission has made considerable progress in its task of developing the State's power resources and promoting a more widespread use of electric power. The degree of utilization of electrical energy in Queensland now compares favourably with other States in the Commonwealth.

4. Regional Electricity Boards.—With a view to facilitating the control and development of electricity supply in areas of low population density and those having a predominantly primary producing economy, the Government, in 1945, passed the Regional Electric Authorities Act providing for the creation of regions of electricity supply and the constitution of Regional Electricity Boards.

Soon after passage of the Act, four Regional Boards were constituted, namely, Wide Bay, Capricornia, Townsville and Cairns. A fifth Board, entitled South Burnett, became an operating authority in October, 1947, but on 1st July, 1951, was absorbed in the Wide Bay Regional Board and this organization is now known as the Wide Bay-Burnett Regional Electricity Board.

As from 1st March, 1957, a further Regional Board became operative, covering the areas of Mackay, Sarina, Proserpine and adjacent rural areas under the name of Mackay Regional Electricity Board. Supply throughout this Region is provided from the central generating station at Mackay and accelerated electrical development of this area is being undertaken.

The Townsville Regional Electricity Board's area was extended in July, 1957, to include that of the Bowen Electricity Undertaking and in September, 1960, to include the Collinsville Electricity Undertaking. The local authority areas of Thursday Island and Cook were included in the Cairns Regional Electricity Board's area from 1st July, 1956, and 1st July, 1957, respectively. As from 1st January, 1958, the Capricornia Region was extended to include the Shires of Bauhinia, Belyando, Emerald and Peak Downs in Central-West Queensland.

Activities of the five Regional Boards in 1958–59 and 1959–60 compared with operations of the stations located in regions in 1945–46, are shown in the following table:—

QUEENSLAND: REGIONAL OPERATIONS.

Region.	1945–46.		1958–59.		1959–60.	
	Units Generated.	No. of Consumers.	Units Generated.	No. of Consumers.	Units Generated.	No. of Consumers.
	Million kWh		Million kWh		Million kWh	
Wide Bay-Burnett	13.7	11,467	81.2	29,513	90.3	31,298
Capricornia	19.5	11,196	146.9	22,417	151.3	23,210
Townsville	25.8	11,612	(a) 99.7	26,929	(a) 70.4	28,555
Cairns	22.7	9,722	174.8	21,088	230.8	22,425
Mackay	6.5	4,283	32.7	9,877	37.3	11,157
<i>Total</i>	<i>88.2</i>	<i>48,280</i>	<i>535.3</i>	<i>109,824</i>	<i>580.1</i>	<i>116,645</i>

(a) Excludes 49 m.kWh purchased from Tully Falls Power Station in 1958–59 and 94 m.kWh in 1959–60.

Installed generator capacity of the five Regional Boards at 30th June, 1960, was:—Wide Bay-Burnett, 37,500 kW; Capricornia, 54,753 kW; Townsville, 41,546 kW; Mackay, 13,000 kW; Cairns, 86,372 kW; total 233,171 kW.

5. **Creation of the Southern Electric Authority of Queensland.**—A major step in electrical progress was taken by the passing of the Southern Electric Authority of Queensland Act of 1952. This Act constituted the City Electric Light Co. Ltd. as a public authority to be known as the Southern Electric Authority of Queensland.

Two Government representatives are included on the Board of the Authority, whose establishment prepares the way for the complete amalgamation, in due course, of the electrical undertakings serving the south-eastern Queensland area of supply.

As from 1st July, 1954, the Southern Electric Authority acquired the Toowoomba Electric Light and Power Co. Ltd., thus bringing that company's area of supply under its control. The Southern Electric Authority is now responsible for the electrical supply and development of a consolidated area of 19,386 square miles.

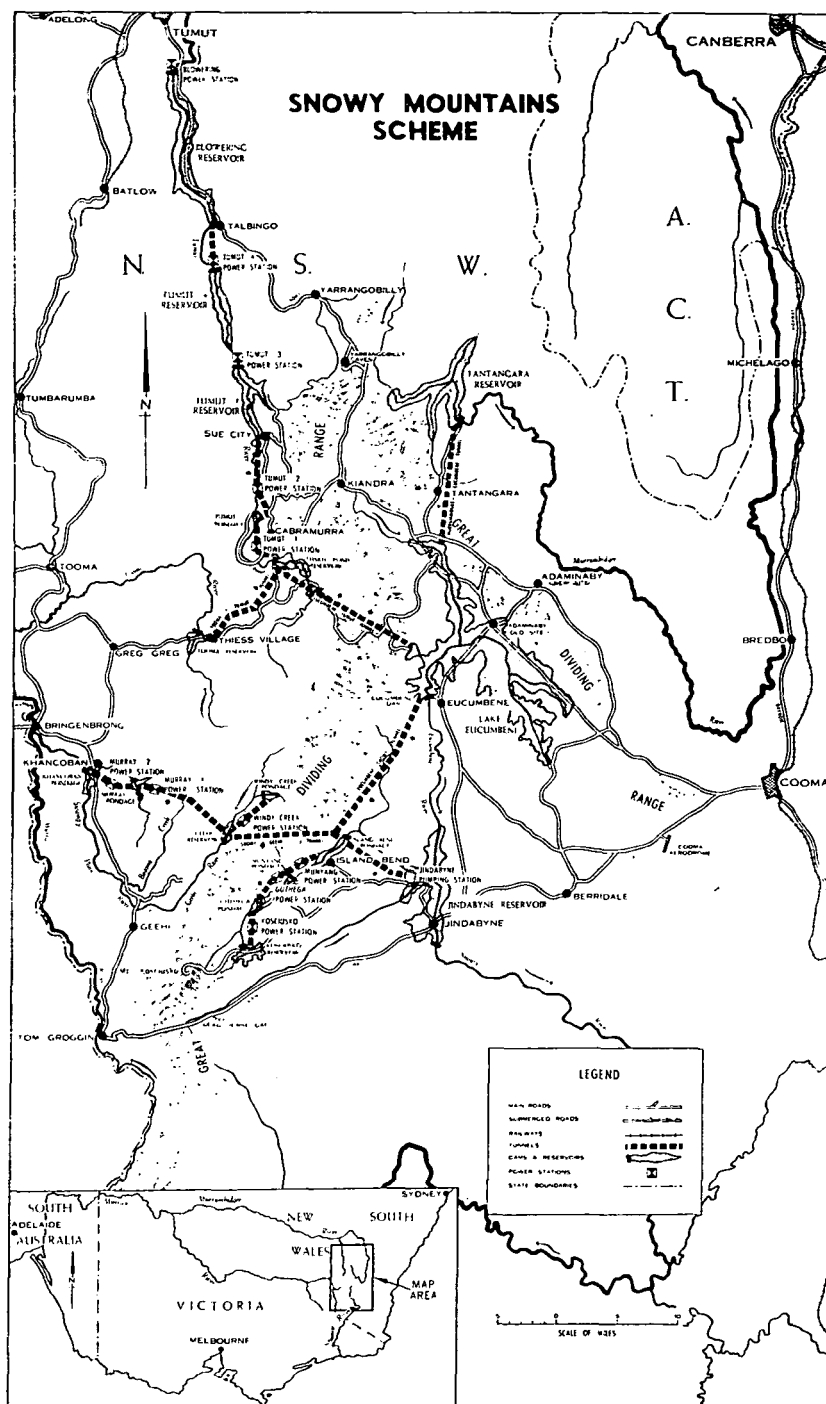
6. **Hydro-electricity.**—Behind the coastal plain of the Cairns-Ingham area is an extensive plateau with elevation ranging from 2,000 to 3,000 feet, although isolated peaks exceed 4,000 feet. The short coastal streams which rise on the plateau descend rapidly into deep gorges, which they have cut through the divide. With heavy monsoonal rainfall on their catchments and concentrated fall, these streams represent a considerable potential source of power, but storage, which can be provided in most cases, is essential to control the very variable flow.

There is a pronounced wet season from December to March, with a dry season from July to November. Average annual rainfall varies greatly with geographic location, being 178 inches at Deeral (midway between Cairns and Innisfail) but only 34 inches at Cashmere (120 miles south-west of Innisfail).

In 1935, a small hydro-electric power station was placed in service at Barron Falls, ten miles north-west of Cairns. The station comprises three 2,000 h.p. turbines, each driving a 1,320 kW generator, and with a hydraulic head of 410 feet. An output of 33 million kWh was attained during 1959–60, the station operating essentially as a run-of-river station without any significant water storage capacity being available. Power is fed at 22 kV into the main network at Mareeba and Cairns.

The hydro-electric power scheme at Tully Falls was commissioned in September, 1957, with an initial plant installation of 36,000 kW. Work has now been completed on the installation of a further two 18,000 kW sets, making a total installation of 72,000 kW. An output of 196 million kWh was obtained from this station during 1959–60. Water controlled by Koombooloomba Dam on the upper Tully River is diverted, a short distance above Tully Falls, through a tunnel and steel penstocks to an underground power station in the gorge at the foot of the Falls operating with Pelton driven generators under a head of 1,485 feet. Power is transmitted to the load centres at Cairns and Innisfail by means of 132 kV transmission lines. Future automatic power plants upstream and downstream from Tully Falls consisting of two 7,500 kW sets under 405 feet head and one 5,400 kW set under 230 feet head are under consideration. The combined peak load for the three plants would then be 69,000 kW. Interconnexion of the Tully Scheme with the Townsville area, which is also being served by a thermal station, was completed in February, 1958, by the provision of a 160 miles double circuit 132 kV transmission line. On present estimates, power from the completed Tully Scheme will be sufficient to supply the inter-connected area until 1963 when additional power will be required.

The construction of a new peak load power station at Barron Falls to provide a firm (dry year) output of 60,000 kW at 25 per cent. load factor (i.e. firm output of 131 million kWh per annum) has been authorized by the Queensland Government. Orders have been placed for the major items of plant and construction of the scheme has commenced. This scheme will ensure an adequate supply of power to the Cairns and Townsville areas until 1967. The completed scheme will provide for an underground power station below the Barron Falls containing two 30,000 kW Francis turbines, operating under a head of 920 feet. Water will be carried from a pond above the Falls by horizontal tunnel and pressure tunnel to the power house. The existing weir will be raised by 8 to 16 feet for this purpose. An earth and rock fill dam will be built on Flaggy Creek, a tributary of the Barron, to provide storage capacity for the scheme, although initially spare storage capacity at the Tinaroo Falls Dam will be used.



Other major schemes which are currently being investigated include North Johnstone-Russell Rivers (32,000 kW); Beatrice-North Johnstone Rivers (9,000 kW); South Johnstone River (25,000 kW); Herbert River (90,000 kW).

In the Townsville Region, the Commission, acting on behalf of the Burdekin River Authority, investigated the proposed hydro-electric development of the Burdekin. The Scheme envisaged a power plant immediately below the Burdekin Falls Dam to operate under an average head of 225 feet.

In relation to other projects, the Scheme is not as favourable economically as a power production project alone, but as a joint power production, irrigation, and flood mitigation scheme, it has considerable potentialities. An estimated output of 80,000 kW at 50 per cent. load factor would be available.

The State Electricity Commission, in conjunction with other Government Departments, is carrying out an extensive investigation into the development of hydro-electric resources. It is estimated that full development of the hydro-electric potential of North Queensland would provide the equivalent of over 300,000 kW of power at 50 per cent. load factor or approximately 1,300 million kWh a year.

A number of small hydro-electric projects are being investigated in other parts of the State. On the Broken River near Eungella (50 miles west of Mackay), a site exists for the establishment of a peak load hydro-electric power station, and this is being examined. The construction, in the future, of a major dam on the Dawson River at Nathan Gorge (near Cracow) in the Capricornia Region for irrigation purposes, would permit the installation of a small hydro-electric power station at this site if the power produced could be economically absorbed. A plant of 3,200 kW capacity has been installed to utilize the outflow from Somerset Dam on the Stanley River a few miles above its confluence with the Brisbane River.

7. New Capacity.—(i) Regions. To provide for development of the electric power resources in the regions, the State Electricity Commission formulated a ten-year programme divided into two five-year periods. In the first, it was planned to erect main transmission systems to connect existing power stations located within the regions and supplement generating capacity by the construction of new stations. Work on this section of the plan in the original Regional Board areas is now complete. In the second, the transmission system will be extended to more sparsely settled areas, the ultimate purpose being the provision of "ring" transmission lines throughout each region and interconnexion between the regions.

A number of new generating stations have been commissioned as follows:—Wide Bay (Burnett Region), of which 15,000 kW was placed in service during September, 1951, and 7,500 kW in 1954, while a further set of 15,000 kW was installed in 1957. Rockhampton (Capricornia Region) of which 22,500 kW was placed in service during September, 1952, a further 15,000 kW in May, 1956, and a further 15,000 kW in December, 1958; and Townsville (Townsville Region) of which 22,500 kW was commissioned in July, 1953, and a further 15,000 kW in January, 1956. Each of these stations will have an ultimate installed capacity of 52,500 kW and be steam-operated. In the Cairns Region, the Tully Falls Hydro-electric Power Station has been completed with 72,000 kW installed capacity.

The Tully Falls Scheme (*see* para. 6, p. 238) was planned to link with the Townsville Regional Electricity Board's system for the purpose of marginal supply, and this interconnexion was completed by the close of 1957. Preliminary work has commenced on the construction of a further hydro-electric scheme on the Barron River which should be completed by June, 1963, and will add 60,000 kW to the available hydro-electric generation capacity in the area. The first stage of the Scheme's development is estimated to cost £5,850,000, and, initially, full use will be made of available storage capacity at Tinaroo Falls Dam, thus enabling construction of a £5,000,000 storage dam on Flaggy Creek to be postponed for a number of years.

At Mackay, where supply was first given in 1924, a Regional Electricity Board has now been constituted and a 66 kV transmission line to Proserpine has been erected. The generating capacity of the station under the control of this Regional Board is 12,500 kW, and a further 3,000 kW of diesel plant is being installed. To supplement this output

a transmission line from the Townsville Region has been planned. At Bowen, the Town Council, which established the service in 1952, transferred control of its area to the Townsville Regional Electricity Board, and transmitted supply is provided by a 66 kV transmission line. During 1935, a small (3,800 kW) power house—Australia's first underground hydro station—was placed in service at Barron Falls near Cairns. When the Cairns Regional Board was established during 1946, operation of the station passed to the Board's control and now comprises part of its generating plant.

(ii) *Western Queensland.* In western Queensland, where a number of small isolated generating stations supply power to some of the larger towns, the Commission has evolved a plan to increase and modernize existing capacity. It involves installation of small internal combustion units ranging in size from 100 kW to 600 kW according to the load likely to be experienced, and conversion from direct to alternating current supply. The Government has assisted the scheme by subsidy—a feature of electrical development in Queensland. Assistance provided for regional electrical development comprises subsidies of up to one-third of capital cost on annual loan charges, with special subsidies of up to 50 per cent. for authorities in the larger towns outside the Regions.

In addition to improving supplies to the larger western towns, a scheme was devised for electricity supplies for smaller towns in the western districts, where consumers range from 50 to 200. Subsidies of 65 and 60 per cent. will apply in those cases where the number of consumers supplied is less than 100 and 200, respectively. This plan is being implemented and at 30th June, 1960, 29 townships in western Queensland had been provided with electricity. The power is supplied by small oil driven generating sets with automatic controls which can be run with a minimum of operating attendance. In addition, investigations of the possibility of supply have been carried out at a number of other small centres.

Coal-burning gas producers have been successfully commissioned for public electricity supply purposes at Longreach, Clermont, Dalby, Blackall and Barcaldine and further extension of their use in western Queensland is predicted, as lower tariffs and more efficient production of electricity should follow their use.

(iii) *South-eastern Queensland.* To increase the availability of electric power in the south-eastern area of the State, the two major generating authorities, in conjunction with the Commission, have power station projects under construction which are designed to place in service, by 1968, new generating units totalling 400,000 kW. The Southern Electricity Authority is continuing the development of the station known as Bulimba "B" on a site adjacent to Bulimba "A". 120,000 kW had been installed to 30th June, 1960, and the ultimate capacity may reach 180,000 kW. At Tennyson in the Brisbane area, the Brisbane City Council has constructed a new power station with an initial capacity of 60,000 kW which may be increased ultimately to 180,000 kW. At 30th June, 1960, generating plant of 120,000 kW was in service at this station. To supplement capacity pending completion of these projects, "packaged" generating units totalling 20,000 kW were obtained from overseas and commissioned early in 1953, one 10,000 kW set having been installed at Tennyson and another 10,000 kW set at Abermain near Ipswich.

The power stations of the two major generating authorities at New Farm and Bulimba are interconnected at 33 kV.

§ 4. South Australia.

1. *General.*—An account of the companies generating electric power in South Australia prior to the establishment of the Adelaide Electric Supply Co. Ltd., and describing the development of that company's activities, was given in Official Year Book No. 39. Also included in the account was some reference to the early measures of public control over electricity supply in South Australia and the extent to which they were applied, and also to the inquiries into the activities of the Adelaide Electric Supply Co. Ltd. in 1932 and 1935.

Following upon an inquiry instituted by the Government in 1943, relative to measures for increasing electricity supply to the metropolitan area and country districts, the Electricity

Act 1943 was passed which, *inter alia*, established the South Australian Electricity Commission. However, until the State assumed full responsibility for the supply of electric power, this body was not able to do much more than exercise the formal functions conferred on it by the Act.

2. The Electricity Trust of South Australia.—Early in 1946, legislation was passed transferring the assets of the Adelaide Electric Supply Co. Ltd. to the newly formed public authority, the Electricity Trust of South Australia, which became responsible for unification and co-ordination of the major portion of the State's electricity supply. This legislation provided that the Trust should take over the powers vested in the South Australian Electricity Commission under the 1943 Act, which, after establishment of the Trust, ceased to exist. In addition to the powers specified in the Adelaide Electric Supply Company's Acts 1897–1931, the Trust may, *inter alia*, supply electricity direct to consumers within a district or municipality with the approval of the local authority, and by agreement with other organizations which generate or supply electricity, arrange to inter-connect the mains of the Trust with those of other organizations, and give or receive supplies of electricity in bulk.

3. Capacity and Production.—There are three main categories of organizations generating electric power in South Australia, namely:—(a) Governmental, which include the Electricity Trust; (b) Local Authorities, e.g., municipal and district councils, and Renmark Irrigation Trust; and (c) other, including individuals and firms primarily engaged in generating power for sale, firms generating power primarily for their own use but supplying outside consumers, and firms generating power solely for their own use.

In 1958–59, total installed capacity in South Australia was 403,366 kW, and electricity generated totalled 1,546 million kWh.

Of the total installed capacity, the Electricity Trust of South Australia operated plant with a capacity of 370,600 kW. It is thus the most important authority supplying electricity in the State. There were approximately 276,000 ultimate consumers of electricity, of whom 252,577 were supplied directly by the Trust and approximately 11,000 supplied indirectly by the Trust (i.e. through bulk supply). Its major steam stations were Osborne "A" (70,000 kW), Osborne "B" (180,000 kW) and Port Augusta "A" (90,000 kW), the balance of the capacity controlled consisting of house sets and regional stations at Port Lincoln and Mount Gambier, where the Trust operates steam power stations of 5,000 kW and 16,800 kW capacity respectively, the former burning fuel oil and the latter either wood waste or fuel oil.

No hydro-electric potential exists in South Australia. Steam generating units comprise 96 per cent. of installed capacity and the balance is internal combustion equipment. Until recently, all fuel consumed in the thermal stations was obtained from sources outside the State, and at times power restrictions were necessary owing to the inadequacy of supplies.

4. Leigh Creek and other New Capacity.—With a view to reducing the dependence on external sources of fuel, steps have been taken to produce local coal and to install plant to use it. Fairly extensive deposits of low-grade sub-bituminous coal are obtainable at Leigh Creek, about 360 miles north of Adelaide. Under the Electricity Trust of South Australia Act Amendment Act 1946, the Trust was given authority to develop Leigh Creek coal for use in its own undertakings and also for sale to other consumers. Production from the Leigh Creek field commenced in 1944, and in the year ended 30th June, 1959, 713,521 tons of coal were produced, practically all of which was used by the electricity undertaking.

In order to cope with the rapidly increasing demand for power, the Electricity Trust is constructing a second power station at Port Augusta, to be known as Port Augusta "B". This station will have a capacity of 240,000 kW making the combined capacity at Port Augusta 330,000 kW. The first 60,000 kW turbo-alternator and one boiler with a capacity of approximately 30,000 kW were commissioned in June, 1960, and the station is scheduled for completion about 1964. Leigh Creek coal will be used exclusively. The power station will be interconnected with the metropolitan area by two 275 kV transmission lines.

Consideration is now being given to the future establishment of some pumped-storage hydro plant, as being possibly the most economic way of handling the peak loads of the system. It is possible that an installation of this type of plant would serve the increasing needs of the system until the late 1960's.

§ 5. Western Australia.

1. **General.**—Electrical undertakings in Perth and Fremantle formerly owned by the Perth City Council, the Western Australian Government Electricity Supply, the Fremantle Municipal Tramways and Electric Lighting Board and other metropolitan, municipal and road board supply authorities have been taken over by the State Electricity Commission of Western Australia. For information on the early history of electricity supply in the metropolitan area, see Official Year Book No. 39, page 1189.

2. **Metropolitan Undertaking.**—Statistics relating to activities of the Metropolitan undertaking are shown in the following comparative table.

WESTERN AUSTRALIA: METROPOLITAN UNDERTAKING.
(Including Bunbury Power Station).

Particulars.	1938-39.	1958-59.	1959-60.
Plant capacity kW	57,000	215,000	245,000
Maximum load kW	33,000	133,000	149,000
Units generated Million kWh	137	605	654
Fuel used per unit (kWh) generated lb.	2.77	1.56	1.51
Coal used tons	168,722	414,919	442,211

3. **Kalgoorlie.**—In Kalgoorlie, the Municipal Council supplies approximately 3,800 consumers with either direct or alternating current. A diesel station of 1,825 kW generating capacity provides direct current to the limit of its capacity. Alternating current is purchased from Kalgoorlie Power Corporation and retailed by the Council to some consumers, while portion is passed through a rectifier to convert it to direct current. Primarily established to supply power to the gold mines, the Kalgoorlie Electric Power and Lighting Corporation operates a steam station of 11,000 kW and maintains a 22 kV line of 21 miles to the Celebration mine. Alternating current is also supplied to about 1,400 consumers. The Corporation's undertaking generates approximately 35 million kWh per annum and boilers are fired by Collie coal.

4. **General Pattern of Electricity Supply.**—The State Electricity Commission gives central power station supply to the metropolitan area and an area of approximately 25,000 square miles defined in the report which formed a basis for the South West Power Scheme Act.

These areas include the more highly developed rural districts with a greater population density, which can more readily be connected to a central power station system.

In the other areas of the State, towns are supplied by the local authority or by a concessionaire operating under an agreement with the local authority and the Commission. Power stations operated under these conditions are exclusively diesel of varying sizes, with the exception of Kalgoorlie which is separately mentioned.

5. **The State Electricity Commission of Western Australia.**—(i) *Origin and Aims.* In order to ensure an organized and co-ordinated future growth of electricity generation and distribution throughout the State, the Government introduced a Bill in 1945 to establish the State Electricity Commission, which, together with an Electricity Bill, became law early in 1946. Under these Acts, the Commission was given power, *inter alia*, to secure the ultimate co-ordination of all State or other electrical undertakings in the State, to construct and operate power stations and transmission lines and purchase as a going concern and carry on the undertaking of any supply authority. Under the Electricity Act, which should be read in conjunction with, and is subject to, the State Electricity Commission Act, no person or organization is permitted to construct or extend an electricity supply undertaking without consent from the Commission. Local authorities are empowered to operate and construct power stations and other works associated with the supply of electricity, provided that authority is first obtained from the Commission and any proposals are not inconsistent with the Commission's plans.

(ii) *New Projects.* Since its inception in 1946, the Commission has made the provision of an adequate reserve of generating plant its primary object. With the commissioning of the first unit at South Fremantle Power Station in May, 1951, the lag caused by shortages during the war and early post-war years was overcome.

The system then developed rapidly to keep pace with the expansion of industry and housing.

Generating plant has been quadrupled in the past fourteen years. The three major power stations have been interconnected with the South West Power Station at Collie enabling the most economical units to be used as a base load station.

Tenders will be called later for a new station to be built at Muja near Collie. In common with the present trend in Australia, this station is to be located on the coal fields adjacent to the coal source.

Continuous development of the transmission and distribution system is being undertaken to keep pace with the growth in consumer demand, at present about 8 per cent. per annum.

6. *South-west Development.*—At the request of the Government, the Electricity Advisory Committee, in 1945, submitted a report recommending, among other things, that a national power scheme for the south-west be proceeded with. The plan provided for acquisition of the existing Collie Power Station and installation of additional generating capacity, construction of a power station at Bunbury and interconnexion of the south-west scheme with the metropolitan system. On 12th October, 1946, the State Electricity Commission acquired the Collie Power Station, which prior to 1946 was owned and operated by the Collie Power Company Limited. At the date of acquisition, the Station's installed capacity was 5,000 kW, comprising two steam units, but this was increased to 12,500 kW in 1952.

Since 1950, the Commission has acquired a number of electrical undertakings from municipal bodies and private organizations in the south-west area and is proceeding with arrangements for the purchase of others. In August, 1951, the first portion of the South-West Power Scheme was officially opened at Collie and many of the south-west towns have now been connected by transmission line to the Collie Power Station. When completed, a system of power lines will reticulate electricity over an area of approximately 25,000 square miles. The first three 30,000 kW units and associated boilers at Bunbury Power Station have been placed in service. Work is proceeding as programmed on a fourth unit to give the Station an ultimate capacity of 120,000 kW. The first section was officially declared open on 23rd August, 1957.

Diesel stations of 9,400 kW capacity at Albany serve the towns of Albany, Denmark, and Mount Barker in the extreme south of the State.

§ 6. Tasmania.

1. *General.*—A considerable part of the water catchment in Tasmania is at high level, with a substantial natural storage available, and this has made it possible to produce energy at lower cost than elsewhere in Australia, or in most other countries. Other factors contributing to the low costs are that rainfall is distributed fairly evenly throughout the year, with comparatively small yearly variations. The cheap power has led to the establishment in Tasmania of several large electro-chemical works with high load factor, and as a consequence the system load factor is also very high (at present 65.1 per cent.).

For information on hydro-electric development in Tasmania prior to the establishment of the Hydro-Electric Commission in 1930, see Official Year Book No. 39, pages 1192-3.

2. *The Hydro-Electric Commission.*—(i) *Present System.* In 1929, the Government passed the Hydro-Electric Commission Act, under which was established the Hydro-Electric Commission and which vests in the Commission, with some minor exceptions, the right to use the waters of the State of Tasmania and authorizes it to develop and reticulate electric power for all purposes. In 1930, this corporate body took over the State hydro-electric undertaking and the business of the Hydro-Electric Department.

The first project undertaken by the Commission was the Shannon Power Development which utilizes 258 feet of the difference in level between the Great Lake (Miena Dam) and Waddamana forebay. A small earthen dam diverts the outflow from the Great Lake through 2½ miles of canal and then by two pipelines to the Shannon Power Station, where 10,500 kW was added to the system in 1934. After passing through Shannon Power Station, the water discharges into the Waddamana canals to be used again at the Waddamana power stations.

In 1933, the Tarraleah Power Development was commenced. In this scheme, the waters of the River Derwent are picked up near Butler's Gorge by a canal and conveyed 14 miles to the pipeline forebay 982 feet above the power station on the Nive River where three 15,000 kW generators were placed in service in 1938. Shortly afterwards, two more 15,000 kW units were added and a sixth machine installed in 1951 brought the total installed capacity at Tarraleah Power Station to 90,000 kW. Storage is provided at Lake King William, an artificial lake created by the 200-ft. high Clark Dam across the Derwent at Butler's Gorge and at Lake St. Clair. In the Butler's Gorge Power Station at the foot of the dam, a single 12,200 kW generator was installed in 1951. To increase the security of the system and to permit variable seasonal loading of Tarraleah Station, a second canal from Clark Dam to Tarraleah was completed in 1955.

Early in 1939, it was decided to make full use of the Great Lake storage by increasing the peak capacity at Waddamana. War conditions impeded progress, but by 1945, two 12,000 kW generators had been installed in a new power station, Waddamana "B", adjacent to the original station Waddamana "A". A third unit installed in 1946 and a fourth in 1949 brought the total to 48,000 kW. To enable a full peak capacity to be maintained at both Waddamana stations a duplicate of the original Waddamana Canal was constructed during 1947-48.

Between 1930 and 1948, the generating capacity of the system was increased by 121,500 kW but the demand for power continued to increase rapidly and it was obvious that a greatly accelerated construction programme would have to be undertaken. Construction of the Tungatinah Power Development was started in 1948 and the Trevallyn Power Development in 1949.

The Trevallyn Power Development, the first constructed by the Commission outside the Central Plateau region, was undertaken primarily to meet the requirements of the aluminium industry. The waters of the South Esk River are diverted through two miles of tunnel and pipeline to a power station on the Tamar River near Launceston where four generators, with a total installed capacity of 80,000 kW were brought into operation before the end of 1955.

The Tungatinah Scheme draws water from three separate catchment areas located on the Central Plateau between the Great Lake (Shannon-Waddamana) and Lake St. Clair (Butler's Gorge-Tarraleah) catchments and control of practically the whole run-off from the Central Plateau has now been effected.

The principal catchment utilized by the Tungatinah Scheme is drained by the Nive River. A 120-ft. high dam at Pine Tier diverts the waters of the Nive through 6½ miles of canal system to the first of a chain of four artificial lakes, created by dams constructed across the outlets from natural marshes and linked by large open cuts. From the southernmost lake, a tunnel and then five steel pipelines lead to the five 25,000 kW generators in Tungatinah Power Station, 1,005 feet below on the Nive River just upstream from Tarraleah Station on the opposite bank of the river. Power was first generated at Tungatinah in mid-1953 with a capacity of 125,000 kW. Water from the smaller Clarence River catchment is brought into one of the lakes in the Tungatinah system by means of a woodstave pipeline 5½ miles in length and the third catchment area utilized is the Lake Echo-Dee River catchment. Regulation of this catchment has been achieved by construction of a dam at Lake Echo to provide the main storage reservoir for the Tungatinah Scheme, construction of the Lake Echo Power Station (one 32,400 kW generator) to utilize 568 feet of the difference in level between Lake Echo and Dee Lagoon, and the diversion of water from Dee Lagoon through 2 miles of tunnel to the main Tungatinah system.

The Wayatinah Power Development, started in 1952, comprises two power stations and headworks to utilize water which is, in the main, already regulated and which has been

used several times. The volume of water available is much larger and the head smaller than in the case of other major stations. All the water which passes through Tarraleah or Tungatinah Stations is diverted, by a weir across the Nive River below Tarraleah, through 4 miles of tunnel and then steel pipes to Liapootah Power Station, completed in 1960, with a capacity of 83,700 kW.

A dam across the River Derwent, just below its junction with the Nive, has created a lake into which flows all the water from the Liapootah Station plus water collected by the Derwent below Clark Dam. A mile of tunnel and a mile of pipeline leads the water to Wayatinah Power Station on the Derwent below its junction with the Florentine River. This Power Station, completed in 1957, has an installed capacity of 38,250 kW.

(ii) *New Capacity.* Four miles below Wayatinah, a diversion dam is being constructed at Catagunya, where a power station, designed to add a further 48,000 kW to the system, is scheduled for completion by 1962. The dam is designed as a pre-stressed concrete structure, 140 feet in height, and is notable as being only the second of its type and the longest yet undertaken by this technique anywhere in the world. The Hydro-Electric Commission is engaged in a progressive construction programme comprising the completion of the Catagunya and the Great Lake Power Developments. In the nine years between June, 1951, and June, 1960, the installed capacity of the system has grown from 184,500 kW to 569,050 kW. Approved construction will bring this total to 917,000 kW by 1966. Investigations are continuing into the very considerable resources as yet untouched, and it is estimated that the potential which can be developed economically should ultimately harness 2,400,000 kW to the system.

The Great Lake Power Development, now in the early stages of construction, is the most recent project to be undertaken by the Commission. In this scheme, the water of the Great Lake, by its diversion in the direction of the most precipitous fall, will be used to much greater advantage than at present. Eventually reaching the South Esk River it will be used again through the generators of the Trevallyn Power Station.

The works will consist of an intake at the Great Lake, a four mile headrace tunnel through the Western Tiers, one mile of surface pipeline on the face of the Tiers, a vertical shaft leading to the power station some 500 feet underground, a two and a half mile tailrace tunnel discharging into a canal, thence through a regulating pond into a channel flowing into the Lake River, a tributary of the South Esk River.

In this development, the power will be generated by the fall of water through a vertical distance of 2,750 feet to an underground power station where generators of 300,000 kW capacity will be installed. The station will be known as Poatina Power Station. A further section of the scheme includes the provision of a dam at Arthur Lakes to increase greatly the storage of the system, and a pumping station and a conduit discharging into the Great Lake so that water from this catchment may be utilized through the Poatina Power Station.

There is every indication that the demand for power in Tasmania will continue to increase. The Commission is conducting extensive surveys and investigation of other schemes with a view to further construction after the completion of the present programme.

3. Power Usage by Secondary Industry.—The abundant and comparatively cheap supplies of electricity and other natural resources have attracted to Tasmania a number of important secondary industries for which energy costs constitute a significant proportion of the total cost of production. Some of the more important organizations and their continuous power demands when plant is operating are as follows:—Electrolytic Zinc Company of Australasia Ltd., 85,000 kW at Risdon and 4,100 kW at Rosebery; Australian Aluminium Production Commission, 34,000 kW; Australian Newsprint Mills Ltd., 21,500 kW; Associated Pulp and Paper Mills Ltd., 17,200 kW; Australian Commonwealth Carbide Company Ltd., 7,850 kW; Mt. Lyell Mining and Railway Company Ltd., 5,500 kW; and Goliath Portland Cement Company Ltd., 3,600 kW.

In addition to the above, the Broken Hill Pty. Co. is setting up a plant at Bell Bay on the Tamar, for the manufacture of ferro-manganese. This is to be completed early in 1962, with a power demand of the order of 12,000 kW. There are expectations of expansion by, and hence of increased supply to, some of these organizations, and of new supplies to other industrial undertakings contemplating establishment in the State.

§ 7. Commonwealth Territories.

1. *Internal Territories.*—(i) *General.* The electricity supply undertakings at Canberra in the Australian Capital Territory and at Darwin, Katherine, Tennant Creek and Alice Springs in the Northern Territory are operated by the Commonwealth Government.

(ii) *Australian Capital Territory.* The supply authority is the Canberra Electric Supply. Supply was first established at Canberra during 1915 and was met from local steam plant. Connexion to the New South Wales interconnected system was effected in 1929, and all requirements are now taken from this system. Total population served with electricity at 30th June, 1960, was 51,000 and the total number of ultimate consumers was 15,554.

The average annual rate of increase of demand since 1947–48 has been 15.15 per cent. and of energy, 14.10 per cent.

During the year 1958–59, the bulk electricity purchased was 123,150,000 kWh and the maximum demand incurred was 33,551 kVA.

(iii) *Northern Territory.* At Darwin, supply was established by the Town Council in October, 1934, but during April, 1937, responsibility for generation and supply was transferred to the Northern Territory Administration. The power station is equipped with diesel generating plant of 6,770 kW capacity, two new 970 kW diesel sets being installed in 1955–56 and an additional 1,380 kW diesel set during 1957. At Alice Springs, the power station is equipped with diesel generating plant of 2,266 kW capacity. A 520 kW set was installed in 1957–58 and an additional 865 kW set in June, 1960.

At Katherine, the power station is equipped with a small diesel generating plant of 450 kW capacity. The diesel station at Tennant Creek was closed down in 1957, supply for the township being purchased in bulk from Peko Mines No Liability.

The total number of ultimate consumers served in the Territory was 4,556 in 1959–60.

In 1956–57, the Department of Works selected a site on the water front of Darwin for a 15,000 kW steam driven generating set. This steam station is being designed to supply Darwin and suburbs when the present diesel station has reached its maximum economical capacity. Construction work is planned to be completed during 1962.

2. *External Territories—Papua and New Guinea.*—Responsibility for the operation and establishment of the electrical undertakings in Papua and New Guinea is vested in the Administration of the Territory of Papua and New Guinea, whose headquarters are located at Port Moresby. The total generating capacity of the diesel engine driven generating sets amounts to 6,389 kW and of the hydro operated sets 3,230 kW. The generating capacity of the power plants at the main centres is—Port Moresby, diesel 2,303 kW, hydro, 3,000 kW; Rabaul, 1,300 kW; Lae, 1,286 kW; Madang, 770 kW; Samarai, 300 kW; Kavieng, 114 kW; Wewak, 415 kW; Lorengau, 76 kW; Goroka, hydro, 200 kW; Aiyura, hydro, 30 kW; and 450 kW distributed among outstations where generating capacity is between 5 kW and 60 kW. The townships of Wau and Bulolo are still supplied by the Bulolo Gold Dredging Co., which operates a hydro-electric plant of 5,500 kW. Power produced by this plant is used mainly to supply alluvial dredges and, in addition, by the plywood mill at Bulolo.

The total number of ultimate consumers served in the Territory was 5,790 in 1959–60.

There is a vast hydro-electric potential in New Guinea and it has been estimated at 15,000,000 kW, but because of the island's location, absence of large load centres and lack of industrialization, only a small proportion could, at present, be economically developed.

In 1950, the Commonwealth Government joined with the British Aluminium Co. Ltd. of London to locate and develop large capacity hydro-electric schemes in New Guinea. A new company was formed, known as New Guinea Resources Prospecting Co. Ltd. with a capital of £100,000. The Commonwealth Government held 51 per cent. of the shares and had a controlling interest on the board of five members. The Commonwealth Government later sold its interest to a company formed by Consolidated Zinc Pty. Ltd., and the British Aluminium Co. Ltd., both of London. This company is continuing investigations into the hydro-electric potential with the object of treating bauxite, which is to be mined in the Gulf of Carpentaria.

The following hydro-electric schemes are now in operation: Port Moresby—at Rouna Falls on the Laloki River, generating sets have been established with an initial capacity of 3,000 kW, with provision for expansion to 5,500 kW as stage 2, and to 17,500 kW as stage 3. The power station began operations in January, 1957. The present project utilizes only portion of the power available from the Laloki River and the economic ultimate development will be of the order of 40,000 kW. At Aiyura, a 30 kW hydro-electric station for the Agricultural Experimental Station has been operating since August, 1956.

At Goroka, two 100 kW hydro-sets are now in operation and a 200 kW set is on order. Investigations are now being carried out to ascertain the possibility of installing an additional 500 kW hydro-set.

Stream gauging and other preliminary investigations for hydro-electric schemes have been carried out at Lae, Rabaul, Madang, Wewak and Highland Stations.

There are possibilities for major hydro-electric development in the following localities:—Rouna Falls (near Port Moresby), Upper Snake and Busu-Erap-Leron (near Lae), Upper Ramu (near Markham-Ramu divide—80 miles from Lae) and Hathor Gorge (on Purari River) with an estimated average power of 100,000 kW, 150,000 kW, 2 million kW, 250,000 kW, and 3 million kW respectively. These have estimated run-offs of 1,400; 6,000; 12,000; 1,000; and 75,000 cusecs respectively.

In an area of 150,000 square miles of the Eastern New Guinea mainland, the power potential has been estimated at 150 kW per square mile which compares favourably with potentials of 170 kW per square mile for Switzerland and 95 kW per square mile for Norway.

D. STATISTICAL SUMMARY, 1953-54 AND 1958-59.

The following table shows statistics for each State separately and for the six States combined for 1953-54 and 1958-59 and relates to:—(i) the numbers and installed capacity of central electric generating stations, (ii) the values of production and output and the average numbers of persons employed in the generating side of the electricity supply industry and (iii) the amount of electricity generated and the number of ultimate consumers of electricity.

For further statistics of the electricity supply industry (years 1938-39 and 1954-55 to 1958-59), see Chapter VI.—Manufacturing Industry.

CENTRAL ELECTRIC STATIONS.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
1953-54.							
<i>Generating Stations—</i>							
Government .. No.	20	15	1	7	8	6	57
Local Authority .. "	34	28	45	14	38	..	159
Companies .. "	30	24	8	23	47	3	135
<i>Total</i>	<i>84</i>	<i>67</i>	<i>54</i>	<i>44</i>	<i>93</i>	<i>9</i>	<i>351</i>
<i>Installed Capacity of Generators—</i>							
Steam .. '000 kW	1,288	750	355	(a)	155	(a)	2,802
Hydro .. "	37	39	7	(a)	..	(a)	381
Internal combustion .. "	97	40	37	(a)	44	(a)	234
<i>Total</i>	<i>1,422</i>	<i>829</i>	<i>399</i>	<i>(a)</i>	<i>199</i>	<i>(a)</i>	<i>3,417</i>
Persons employed(b) No.	5,140	2,690	1,289	(a)	961	(a)	11,395
Value of output(c) £'000	31,401	16,169	9,057	(a)	5,663	(a)	69,981
Value of production(d) .. "	13,996	6,862	3,154	(a)	2,309	(a)	30,098
Electricity generated(e)							
million kWh	5,450	3,693	1,511	955	627	1,471	13,707
Ultimate consumers(f) No.	921,229	687,949	305,636	216,289	118,117	97,400	2,346,620

See following page for footnotes.

CENTRAL ELECTRIC STATIONS—*continued.*

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
1958-59.							
Generating Stations—							
Government .. No.	26	17	1	6	11	8	69
Local Authority ..	20	14	60	11	37	..	142
Companies ..	18	13	2	18	40	3	94
Total	64	44	63	35	88	11	305
Installed Capacity of Generators—							
Steam .. '000 kW	1,883	1,030	595	(a)	270	(a)	4,172
Hydro ..	312	237	79	(a)	2	(a)	1,126
Internal combustion ..	81	43	38	(a)	58	(a)	233
Total	2,276	1,310	712	(a)	330	(a)	5,531
Persons employed(b) No.	5,542	3,398	1,644	(a)	1,106	(a)	13,124
Value of output(c) £'000	45,626	29,099	13,733	(a)	7,356	(a)	107,549
Value of production(d) ..	28,101	18,529	5,883	(a)	3,493	(a)	63,422
Electricity generated(e) million kWh	8,275	5,704	2,305	1,583	876	2,456	21,199
Ultimate consumers(f) No.	1,104,810	852,288	384,100	276,000	149,932	114,442	2,881,572

(a) Not available for publication; included in the total for Australia. (b) Average employment in generating station, over whole year, including working proprietors. (c) Value, at generating station, of electricity produced plus certain earnings. (d) Value added in the process of generation. (e) Total generated including that generated by factories for their own use. (f) Approximate figures supplied by the electricity authority in each State. An "ultimate consumer" is a person, business, undertaking, etc., that has contracted to receive electric power from a public or private organization supplying this service. The number of ultimate consumers is not identical with the number of persons served with electricity because one ultimate consumer may represent three or four persons, e.g. in a household.

CHAPTER VIII.

WATER CONSERVATION AND IRRIGATION.

A. RESOURCES, UTILIZATION AND NATIONAL AND INTERSTATE ASPECTS.

§ 1. Introduction.

Official Year Book No. 37, pages 1096–1141, contained a special article "The Conservation and Use of Water in Australia" prepared by Mr. U. R. Ellis. In subsequent issues, much of Mr. Ellis's article of a statistical nature has been advanced, as has the general information on the more important developments in this field, but for details of general, descriptive and historical matter reference should be made to the original article. Appended to the special article, pages 1140–41, was a bibliography of selected books, reports, papers, etc., dealing with the development of the water resources of Australia and their conservation.

For further details on geographical and climatic features determining the Australian water pattern, reference should be made to Chapter II.—Physiography; on water supply and sewerage in metropolitan areas, cities and towns to Chapter XIX.—Local Government; and on the generation of hydro-electric power to Chapter VII.—Electric Power Generation and Distribution, of this issue.

A series of maps showing the location of major dams and reservoirs and the various irrigation schemes operating in each of the States may be found on pages 259–65 of Official Year Book No. 46, and a map showing the extent of known artesian basins throughout Australia is shown on page 273 of this issue.

§ 2. Water Resources and their Utilization.

1. **Surface Supplies.**—Though river gaugings have been recorded over considerable periods in some parts of Australia, records elsewhere are intermittent, of short duration, or non-existent. At present, therefore, it is impossible to estimate, with any degree of reliability, the total average annual flow of Australian streams; but it would probably amount to only a small figure in comparison with the flow of rivers in other continents some examples of which, expressed as mean annual discharges in millions of acre feet, are: Nile, 72; Danube, 228; Amazon, 1,780; Volga, 148; Mississippi, 474; and the ten main rivers of the United States of America in the aggregate, 900.

2. **Major Dams and Reservoirs.**—The table below lists existing major dams and reservoirs, together with those under construction and those projected as at June, 1960:—The list is confined to dams and reservoirs with a capacity of 100,000 acre feet or more. There are, in addition, many others of smaller capacity in Australia.

MAJOR DAMS AND RESERVOIRS IN AUSTRALIA.

Name.	Location.	Capacity (Acre feet).	Height of Wall (Feet).	Remarks.
EXISTING DAMS AND RESERVOIRS.				
Eucumbene ..	Eucumbene River, New South Wales	3,500,000	381	Part of Snowy Mountains Hydro- electric Scheme.
Eildon	Upper Goulburn River, Victoria	2,750,000	260	Storage for irrigation and for the generation of electricity.
Hume	Murray River near Albury	2,500,000	142	Part of Murray River Scheme— storage for domestic, stock and irrigation purposes. Hydro- electric power also developed.
Menindee Storage	Lakes Darling River, near Menindee, New South Wales	1,920,000	..	Part of Darling River water conservation Scheme for irrigation and possible hydro-electric power generation.

(a) Useful storage only.

MAJOR DAMS AND RESERVOIRS IN AUSTRALIA—*continued.*

Name.	Location.	Capacity (Acre feet).	Height of Wall (Feet).	Remarks.
EXISTING DAMS AND RESERVOIRS— <i>continued.</i>				
Miena	Great Lake, Tas- mania	(a)984,500	40	Regulates water to Waddamana hydro-electric power station.
Burrinjuck ..	Murrumbidgee River, New South Wales	837,000	264	Storage for irrigation and pro- duction of hydro-electric power.
Somerset	Stanley River, Queensland	735,000	173	Brisbane-Ipswich water supply, flood mitigation and small hydro-electric power station.
Lake Victoria ..	Murray River near South Australian border, in New South Wales	551,700	..	Natural storage for irrigation in South Australia. Storage im- proved by construction of embankments and control regulators.
Lake Echo	Lake Echo, Tas- mania	(a)412,200	60	Storage for Lake Echo and Tun- gatinah hydro-electric power stations.
Keepit	Namoi River, near Gunnedah, New South Wales	345,000	177	For rural water supplies and hydro-electricity generation.
Waranga	Goulburn River, Victoria	333,400	..	Irrigation storage.
Tinaroo Falls ..	Barron River, North Queensland	330,000	133	For irrigation purposes in the Mareeba-Dimbulah area.
Glenbawn	Hunter River, near Scone, New South Wales	293,000	251	Part of Hunter Valley conserva- tion work, for irrigation and flood mitigation.
Rocklands	Glenelg River, Vic- toria	272,000	..	Part of Wimmera-Mallee domes- tic and stock water supply system.
Clark	Derwent River, Tas- mania	(a)253,400	200	Serves Tarraleah hydro-electric power station.
Wyangala	Lachlan River, New South Wales	(b)246,435	190	Storage for domestic, stock and irrigation purposes and for generation of hydro-electric power.
Tantangara ..	Murrumbidgee River, New South Wales	(a)193,000	148	Part of Snowy Mountains Hydro- electric Scheme.
Avon	Avon River, New South Wales	173,800	232	Part of Sydney water supply.
Glenmaggie ..	Gippsland, Victoria	154,300	100	Storage for irrigation.
Lake St. Clair ..	Central Highlands, Tasmania	(a)154,200	..	Improved natural storage for Tarraleah hydro-electric power station.
Lake Brewster ..	Lachlan River, near Hillston, New South Wales	123,900	..	Storage of rural water supplies for the lower Lachlan.
Cairn Curran ..	Loddon River, Vic- toria	120,600	..	Storage for irrigation.
Upper Yarra ..	Yarra River, Victoria	110,000	270	For Melbourne water supply.

DAMS AND RESERVOIRS UNDER CONSTRUCTION.

Warragamba ..	Warragamba River, New South Wales	1,670,000	379	For Sydney water supply. Also provides for generation of hydro-electricity and flood mitigation.
Burrendong ..	Macquarie River, near Wellington, New South Wales	1,361,000	240	For rural water supplies, flood mitigation and possible hydro- electric power generation.
Eppalock	Campaspe River, near Heathcote, Victoria	250,000	150	To supplement supply to Bendigo and for irrigation.
Wellington ..	Collie River, Western Australia	150,100	112	Existing dam is being enlarged for supply of water to irri- gation districts and to agri- cultural areas and country towns.
Koombooloomba ..	Tully River, North Queensland	146,000	123	For hydro-electric and possibly irrigation purposes.
Serpentine	Serpentine River, Western Australia	143,500	171	For Perth water supply.

(a) Useful storage only.

(b) Temporary reduced level.

MAJOR DAMS AND IN AUSTRALIA—*continued.*

Name	Location.	Capacity. (Acre feet).	Height of Wall (feet).	Remarks.
DAMS AND RESERVOIRS PROJECTED.				
Burdekin Falls ..	Burdekin River, North Queensland	6,584,000	150	For generation of hydro-electric power, irrigation and flood mitigation.
Blowering ..	Tumut River, New South Wales	846,000	280	For regulation of discharges from stations of Snowy Mountains Hydro-electric Scheme, primarily for irrigation but also for power generation.
Jindabyne ..	Snowy River, New South Wales	560,000	210	Part of Snowy Mountains Hydro-electric Scheme.
Warkworth ..	Wollombi Brook, Hunter Valley, New South Wales	406,000	130	Flood mitigation and irrigation dam for the Hunter Valley.
Arthur Lakes ..	Source of Lake River near Great Lake, Tasmania	(a)339,000	50	Part of Great Lake hydro-electric power development.
Tumut 4 ..	Tumut River, New South Wales	138,000	300	Part of Snowy Mountains Hydro-electric Scheme.
Tumut 3 ..	Tumut River, New South Wales	120,000	240	Part of Snowy Mountains Hydro-electric Scheme.

(a) Useful storage only.

3. Irrigation.—(i) *History.* For some brief remarks on the history of irrigation in Australia referring to the efforts of the Chaffey brothers and to the Victorian Irrigation Act in 1886 see issues of the Official Year Book prior to No. 39. Trends in irrigation practice in more recent years were described in Official Year Book No. 37, page 1009.

(ii) *Extent and Nature of Irrigated Culture.* About half of Australia's irrigated acreage is in Victoria, and about two-thirds is situated along the Murray and its tributaries (including the Murrumbidgee) in the three States of New South Wales, Victoria and South Australia. In those areas served by the Murray and its tributaries, irrigation water is used extensively for vines, orchards, pastures, fodder, and for domestic and stock purposes. Approximately forty per cent. of Queensland's irrigated acreage is devoted to sugar cane. Western Australia's small irrigated acreage is confined to areas in the south-west where vegetables, orchards, fodder, and pastures are served. Large scale irrigation schemes have not been developed in Tasmania or the Northern Territory although investigations are at present being carried out in the Northern Territory to determine the availability of irrigation water for rice production.

The following table shows the area of land irrigated in each State during the years 1955-56 to 1959-60:—

AREA OF LAND IRRIGATED.

(Acres.)

Season.	N.S.W. (a)	Vic. (b)	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
1955-56 ..	379,611	634,334	136,019	70,987	37,164	11,499	225	774	1,270,613
1956-57 ..	525,236	855,182	121,672	66,118	38,567	12,110	168	885	1,619,938
1957-58 ..	695,365	1,001,800	160,345	80,853	41,319	15,321 (c)	127	1,396	1,996,326
1958-59 ..	641,361	965,766	154,633	85,081	44,102	13,431 (c)	274	1,224	1,905,872
1959-60 ..	722,668	1,052,782	152,136	100,899	45,889	18,108 (c)	365	869	2,093,716

(a) Source: Water Conservation and Irrigation Commission.

(b) Source: State Rivers and

Water Supply Commission. (c) Incomplete; excludes area of rice irrigated.

The next table shows the area of land irrigated in each State during 1959-60 according to the nature of irrigated culture:—

AREA OF LAND IRRIGATED, 1959-60.

(Acres.)

Crop.	N.S.W. (a)	Vic. (b)	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
Rice ..	48,972						(c)		48,972
Vegetables ..	4,048	20,628	27,207	10,149	8,447	1,235	130	128	71,972
Fruit ..	17,761	39,612	5,212	22,315	7,642	2,350	39	1	94,932
Vineyards ..	12,365	43,778	(d)	26,014	705				82,862
Sugar-cane ..	(e)		62,346						62,346
Hops ..		(e)			(e)	1,311			1,311
Cotton ..			2,579		(e)				2,579
Other Crops (including Fodder and Fallow land)	170,338	101,156	(f)45,371	23,034	3,668	1,873	192	428	346,060
<i>Total, Crops</i>	<i>253,484</i>	<i>205,174</i>	<i>142,715</i>	<i>81,512</i>	<i>20,462</i>	<i>6,769</i>	<i>361</i>	<i>557</i>	<i>711,034</i>
Pastures ..	469,184	847,608	9,421	19,387	25,427	11,339	4	312	1,382,682
Total ..	722,668	1,052,782	152,136	100,899	45,889	18,108	(g) 365	869	2,093,716

(a) Source: Water Conservation and Irrigation Commission. (b) Source: State Rivers and Water Supply Commission. (c) Not available for publication. (d) Included with Fruit. (e) Included in Other Crops. (f) Includes Tobacco, 9,256 acres. (g) Incomplete; excludes area of rice irrigated.

(iii) *Research.* Comprehensive programmes of research and investigation are being pursued by State water and agricultural authorities and the Commonwealth Scientific and Industrial Research Organization, often in collaboration. Special attention is being given to the following:—high water tables due to the application of water; surface accumulation of salt and other soil changes associated with irrigation; methods of applying water efficiently; soil treatments to improve the physical condition of irrigated heavy clay soils; the utilization of irrigated pastures by stock; growth problems affecting plants and trees; the prevention of evaporation from water storages; and the potability of saline waters for stock.

The Commonwealth Scientific and Industrial Research Organization maintains the following research stations:—Merbein (Victoria)—irrigation problems with particular reference to ground-water, hydrology and viticulture; Griffith (New South Wales)—irrigation problems with particular reference to citrus and stone fruits and to vegetables; Deniliquin (New South Wales)—irrigated pastures; and the Kimberley Research Station (Western Australia)—tropical crops and pastures. In the maintenance of Merbein and Griffith stations, the Commonwealth is assisted, financially and otherwise, by the New South Wales Water Conservation and Irrigation Commission, by the Dried Fruits Export Control Board and by private organizations.

The Soils Division of the Organization has made detailed surveys of more than a million acres since 1927, with less detailed reconnaissance surveys over many millions of acres. The Division works closely with State authorities. The keynote of soil investigations is the relationship between soil and land use, and there is an increasing tendency to seek such surveys before irrigation districts are established. Research is also conducted in the field of water percolation in relation to soil structure.

The Irrigation Research and Extension Committee plays an important part in the agricultural activity of the Murrumbidgee Irrigation Areas. It is representative of the State Department of Agriculture, the Commonwealth Scientific and Industrial Research Organization, the Rural Bank of New South Wales, the Soil Conservation Service of New South Wales and certain farmers' organizations (including Extension Groups). Finance is provided by these authorities on an agreed basis. The objectives are:—to enable the agricultural extension services to the farmers in the defined sub-region to be continued and developed; to provide a system for advising on local agricultural policy and organization; to provide means for farmer opinion to have due weight in the consideration of

regional agricultural administration and policy; to achieve a unified approach to sub-regional extension in all branches of agriculture; to advise on the research needs of the sub-region and the co-ordination of the agricultural research of the various rural institutions working therein; to achieve close liaison between research and extension; and to conduct research in extension methods.

4. Preservation of Catchments.—Since water conservation commences on the catchments, it is becoming increasingly recognized that anything which interferes with catchment efficiency affects the quantity of water available for all purposes. Active steps are being taken to counteract soil erosion, to conserve soil generally, and to minimize the effects of floods, overstocking, bush fires, and the destruction of vegetative cover. All States and the Commonwealth have initiated forestry policies which provide for reafforestation and the preservation of catchments. In recent years, efforts to counteract soil erosion have been intensified and there is some evidence of a more unified approach to catchment, water, forestry, and land use factors regarded as parts of a single problem.

5. Sub-surface Supplies.—(i) *General.* Much of Australia's underground water is obtained from artesian and sub-artesian basins and is used for stock purposes. These supplies are indispensable in most inland areas. The quality of the water ranges from usable to very saline. In inland areas, a considerable amount of water has been tapped that is unusable because of its high salt content. Because of this, development of an economic desalting process would provide the interior with additional large quantities of usable water.

Considerable use is also made of sub-surface water, other than pressure water, from local storages, particularly in the well-settled areas. The water is used mainly for domestic and stock purposes. Compared with other countries with similar rainfall and climate, underground water is not used extensively for town supplies.

There is no national body in Australia concerned with Commonwealth-wide research into and assessment of underground water resources. However, the Australian Academy of Science, in 1956, instituted a Standing Committee on Hydrology; as a result of discussions by this committee, the Academy, in 1958, recommended the need for such a body. The Commonwealth Government subsequently convened, in 1959, a meeting of interested Government agencies from all States to discuss the need for a permanent Commonwealth and States Conference on Underground Water and the need for the appointment of more Commonwealth hydro-geologists. The meeting acknowledged both these needs, and its decisions are being considered by the respective Governments.

Although there is no national co-ordinating body, the various States and Territories do maintain Geological Surveys and Water Commissions which are continually extending the knowledge of their own States.

In addition, The University of New South Wales recently formed the Water Research Foundation which has among its objectives research into underground water. To date, research has been devoted mainly to run-off studies, design of large earth farm dams and to sponsoring post-graduate hydrology courses.

As a result, a general picture exists of Australia's available and potential underground water resources. Much remains, however, to be done in the mapping and assessment of individual artesian and sub-artesian basins and in the investigation of their constituent aquifers. Detailed investigations also remain to be carried out of shallower underground water in alluvial deposits, coastal sands and mantles of weathered and jointed rock.

Such detailed surveys are of great importance because of the fundamental need for underground sources of water in the settlement of large areas of Australia.

(ii) *Artesian and Sub-artesian Supplies.* Pressure water (either artesian or sub-artesian) variable in quantity and quality is obtainable in many parts of Australia, the various artesian basins extending over about half the continent. A map of Australia showing the extent of the known artesian basins appears on page 273 of this Year Book.

The Great Artesian Basin, the most extensive in the world, underlies an area of approximately 670,000 square miles, comprising about 430,000 in Queensland, 80,000 in New South Wales, 120,000 in South Australia and 40,000 in the Northern Territory. The following are the principal defined water-bearing basins in Australia.

PRINCIPAL WATER-BEARING BASINS: AUSTRALIA.

Name.	State.	Geological Age of Chief Aquifers.	Approximate Area.	Depth to Pressure Water.
			Square Miles.	Feet.
Great Artesian ..	Queensland, New South Wales, South Australia and Northern Territory	Mesozoic	670,000	Up to 7,000
Canning and Fitzroy	Western Australia	Mesozoic-Palaeozoic	160,000	100 to 1,500
Murray ..	Victoria, New South Wales and South Australia	Miocene-Eocene ..	107,250	100 to 900
Eucla	Western Australia, South Australia	Pliocene-Miocene ..	68,000	300 to 2,000
Barkly-Georgina	Northern Territory, Queensland	Cretaceous, Ordovician, Cambrian and Upper Proterozoic(?)	57,000	150 to 1,000
Carnarvon ..	Western Australia	Cretaceous, Permian ..	40,000	230 to 4,000
Perth	Western Australia	Recent, Jurassic ..	10,000	200 to 2,500
Pirie-Torrens ..	South Australia ..	Recent, Pleistocene ..	4,000	Up to 600
East Gippsland ..	Victoria	Pleistocene-Eocene ..	2,500	200 to 1,800
Adelaide ..	South Australia ..	Recent, Oligocene ..	1,100	10 to 850
Basins of Ord-Victoria Region	Northern Territory, Western Australia	Mainly Cambrian and Permian	Unknown	Unknown

More than 3,000 artesian bores have been constructed within the Great Artesian Basin, while the daily free discharge from all bores continuing to flow in Australia has been stated to exceed 350 million gallons, of which the loss by evaporation and seepage has been estimated at more than 90 per cent. Sub-artesian bores and wells throughout Australia number more than 200,000.

Artesian water generally is good stock water, but most is unsuitable for plant life, while in certain areas sub-artesian waters are suitable for all uses including irrigation. In some districts, a considerable amount of irrigation is carried out from shallow ground-water supplies.

In common with other countries possessing artesian supplies, Australia has been faced with the problem of flow diminution. It was recognized early that flows were diminishing as more bores were drilled, but it is now considered that while many of the bores will ultimately cease to flow, many will not cease, but will assume a perpetually steady rate of flow, corresponding with the average intake of water from rainfall absorbed by permeable outcrops, mainly sandstone and limestone. Diminution in flows from artesian bores has emphasized the need to eliminate wastage as much as possible, and investigations have been made regarding wasteful methods of distribution of artesian water by open channels or "bore drains" and the careless use of water. (For greater detail on this subject See Official Year Book No. 37, pp. 1103-4.)

(iii) *Shallow Groundwater.* Shallow groundwater supplies are used in various parts of Australia for industry, irrigation, stock and domestic purposes. Two of the most important of these supplies are in New South Wales. The Hunter District Water Board pumps 15 million gallons a day for general use from the Tomago coastal sands near Newcastle and at Botany, Sydney, private industry pumps 5 million gallons a day for its own use from similar sands.

Exploration of the coastal sands north of the Tomago Sands has revealed a further potential production of 25 million gallons a day.

§ 3. National and Interstate Aspects.

1. *General.*—As the Commonwealth Constitution makes special reference to water rights both the Commonwealth and the State Governments have an interest in the control and conservation of water. The main responsibility for control of water resources rests with the individual State governments, but as political boundaries sometimes intersect river valleys and catchments, co-operation between governments has been necessary to develop resources in certain cases. Specific examples of Commonwealth-State and interstate co-operation and approach are given in the following sections.

In the Report on Irrigation, Water Conservation and Land Drainage presented to the Commonwealth Government by the Rural Reconstruction Commission in 1945, national aspects of water conservation and use were emphasized. The report recommended that, to obviate lack of co-ordination, an all-Australian plan having the assent of the various governments be adopted, and that the Commonwealth should endeavour to promote interstate co-operation and co-ordinated development generally.

In 1946, a conference between the Commonwealth and States agreed to revive the Irrigation Production Advisory Committee first established under the authority of the Australian Agricultural Council in 1938. Its functions are:—(a) to prepare for the consideration of the Australian Agricultural Council, or any Committee of Ministers appointed by the Council, conclusions formed from investigations to be carried out by Commonwealth and State Officers into the various agricultural industries which it is possible to develop on irrigated lands; (b) to undertake long-term co-ordination of land utilization in irrigable areas served by the River Murray and its tributaries, involving co-ordination of all available lands and the carrying out of such supplementary investigations as may prove necessary.

2. *Murray River Scheme.*—(i) *General.* The Murray River and its tributaries form the largest river system in Australia. The catchment is approximately 414,000 square miles, or one-seventh of the area of the Australian continent, comprising five-sixths of New South Wales, over one-half of Victoria, one-sixth of Queensland and one-fortieth of South Australia. The Murray proper is 1,600 miles long. Its main tributaries are the Murrumbidgee (980 miles), the Darling (1,700 miles), and the Goulburn (350 miles). The average annual flow of each of the chief contributory streams is as follows:—Upper Murray, including the Mitta Mitta and Kiewa Rivers, 3,623,000 acre feet; Murrumbidgee River, 2,054,000 acre feet; Goulburn River (including Broken River), 2,570,000 acre feet; Darling River, 2,896,000 acre feet; and Owens River, 1,222,000 acre feet. Irrigated production in the River Murray Basin is mainly grapes for wine, dried fruits, fresh fruits, rice, vegetables, dairy produce, wool, fat lambs, poultry, eggs and pigs.

For a brief summary of the historical events leading up to the River Murray Agreement (1915) by the Governments of the Commonwealth, New South Wales, Victoria, and South Australia, see issues of the Year Book prior to No. 39. The Agreement provided for the construction of works, the allocation of the water between the three States, and the appointment of a Commission to implement the Agreement. The Commission comprises four Commissioners, representing the Commonwealth and the three States respectively. The Commonwealth representative presides.

(ii) *River Murray Waters Agreement.* Under the Agreement, construction works are carried out by the States (who are also responsible for maintenance) subject to the approval and direction of the Commission. The Agreement provides that the minimum quantity of water to be allowed to pass for supply to South Australia in each year shall be sufficient to fill Lake Victoria storage once, and with the aid of water returned from Lake Victoria, to maintain certain specified flows in the lower river varying from 47,000 acre feet a month in the winter months to 134,000 acre feet a month in the four summer months of maximum demand—the total amounting to 1,254,000 acre feet over twelve months. These flows are to meet domestic and stock requirements in South Australia, losses of water in lockages and evaporation losses other than in the lakes at the Murray mouth, together with 603,000 acre feet per annum for diversion from the Murray in South Australia. The flow at Albury is shared equally by New South Wales and Victoria, and each of these States has full control of its tributaries below Albury, subject in each case to the fulfilment of the South Australian allocation. For a brief outline of the operation of the Agreement prior to 1949, see *Official Year Book* No. 40, page 1065, and earlier issues.

At a conference of Ministers held in July, 1949, to consider the diversion of the Snowy River, it was decided that, by diversion of streams in the Snowy Mountains area, an average of approximately 440,000 acre feet per annum would be added to the Murray River (see

para. 4, Snowy Mountains Hydro-electric Scheme, p. 259) and that a storage of not less than 1,500,000 acre feet should be provided in order to give additional regulation of the Murray River itself as well as to provide for regulation of the diverted waters. Hydro-electric potentialities would also affect the size of the storage.

The River Murray Commission investigated the position and found that an increase in capacity of 500,000 acre feet in storage on the Upper Murray River above Albury was the maximum that was economically justifiable for the regulation for irrigation purposes of the waters of the Upper Murray River and of waters added from the Snowy River. The Commission agreed that this increase could be provided best by increasing the size of the Hume Reservoir from its previously designed capacity of 2,000,000 acre feet to 2,500,000 acre feet, but if additional storages for hydro-electric purposes become justified in the future, better provision could be made at some other site. It subsequently recommended to the contracting Governments that the River Murray Waters Agreement be amended to provide for this enlargement of the Hume Reservoir to 2,500,000 acre feet. A conference of Ministers considered the recommendation in July, 1954, and agreed to the enlargement. In addition, it was agreed that the Commission should be given power to construct regulators and to carry out such other work on the River Murray between Tocumwal and Echuca as it considered necessary to reduce the losses from the regulated flow in that stretch of the river. The amended Agreement was ratified in the Parliaments of the Commonwealth and the three States and was proclaimed on 7th April, 1955. In view of the proposed diversions by the Snowy Mountains Authority to and from the River Murray, and for other reasons, amendments to those sections of the River Murray Waters Agreement dealing with the distribution of the waters of the Murray were considered desirable. Following Ministerial conferences, amendments were ratified by the four Parliaments concerned and came into force on 6th November, 1958.

The estimated quantity (in acre feet) of water diverted during 1959–60 from the Murray and its tributaries for irrigation and other purposes under the River Murray Agreement was as follows:—New South Wales, 2,163,000; Victoria, 2,942,000; South Australia, 292,000; a total of 5,397,000 acre feet.

(iii) *River Murray Works.* One of the major works of the Murray River Scheme is the Hume Reservoir, situated just below the junction of the Murray and Mitta Mitta Rivers, 10 miles above Albury, forming a lake of 33,000 acres. The design comprises a mass concrete spillway and outlet works extending 1,000 feet and an earthen embankment 110 feet high extending for 4,000 feet across the river flats. The length of the total structure is approximately one mile. Work is nearly completed on the enlargement of the reservoir to its approved capacity of 2,500,000 acre feet. The fixed spillway was completed to its final level in May, 1957, and installation of flood gates to raise the level a further 24 feet was completed in September, 1958. The anchoring of the concrete section of the dam to the underlying rock by pre-stressed cables was still in progress in September, 1960. As this work proceeds, the storage can be progressively increased and raised to its approved capacity on completion of the work.

The Yarrawonga Diversion Weir, which was completed in 1939, raised the river level so that water could be diverted by gravitation into main channels constructed on either side of the river. Between the Yarrawonga Weir and the Murray mouth, thirteen weirs and locks have been built. Two flood diversion weirs have been constructed on the Murrumbidgee—one between Hay and the Lachlan Junction and the other below the Lachlan Junction.

The Mulwala Canal, served by the Yarrawonga Weir, has an off-take capacity of 2,500 cubic feet a second, to serve 1,500,000 acres of land in New South Wales. The Yarrawonga Channel, on the Victorian side, has an off-take capacity of 1,250 cubic feet a second, to serve 270,000 acres. Only a portion of each area will be irrigated.

Adjoining the river in New South Wales and 35 miles from the Murray-Darling Junction, Lake Victoria storage, with a capacity of 551,700 acre feet and a surface area of 27,670 acres, was completed in 1928. The water released from Lake Victoria is used by the South Australian settlements. The inlet channel to Lake Victoria was enlarged in 1957 to permit greater diversion of periodical flood flows of short duration.

Five barrages across channels near the Murray River mouth connecting Lake Alexandrina with the sea were completed in 1940 to prevent ingress of salt water to Lakes Alexandrina and Albert and to the lower river, thereby increasing the productivity of adjacent lands. The structures maintain a sufficiently high level for 50 miles up river to permit watering by gravitation of a considerable area of reclaimed river flats. The total distance across the barrages and intervening islands is 15 miles.

In addition to the works carried out under the auspices of the Commission, the separate States have constructed thousands of miles of distribution channels and have provided a number of storages on the tributaries, thereby contributing very materially to the large amount of irrigation development in the Murray Basin. The total capacities of such main

storages are: New South Wales—Menindee Lakes Storage (Darling), 1,920,000 acre feet; Burrinjuck (Murrumbidgee), 837,000 acre feet; Wyangala (Lachlan), 303,900 acre feet; Keepit (Namoi), 345,000 acre feet; Victoria—Eildon (Goulburn), 2,750,000 acre feet; Waranga (Goulburn), 333,400 acre feet. More details of these and other State works on Murray tributaries will be found in the sections dealing with State systems. No storages exist on the Murray in South Australia, but a proposal has been made recently by the South Australian Government for a $4\frac{1}{2}$ million acre feet storage at Chowilla on the river about 37 miles above Renmark.

3. New South Wales-Queensland Border Rivers Agreement.—The New South Wales-Queensland Border Rivers Agreement came into effect on 1st July, 1947. The Agreement provides for the construction of certain works on those sections of the Severn, Dumaresq, Macintyre and Barwon Rivers which constitute part of the boundary between New South Wales and Queensland, for the furtherance of water conservation, water supply and irrigation in those States.

The works to be constructed comprise a dam on the Dumaresq River at a site to be selected by the Commission to give a storage basin with a capacity as large as is reasonably practicable and not less than six nor more than twelve weirs as may be found necessary to meet the requirements of irrigation along the rivers. Provision is also made for the construction of not more than four regulators in the effluents from the barrier rivers and for the taking over of the existing weir on the Macintyre River at Goondiwindi and the existing weir on the Barwon River at Mungindi. The costs of these works and of administration are to be borne by the States in equal shares. The agreement further provides that the water discharged from the Dumaresq storage, whether by regulated or unregulated flow, shall be available to the two States in equal shares.

The Water Conservation and Irrigation Commission of New South Wales, which is the constructing authority for the dam, carried out investigations of several dam sites on the Dumaresq River near Mingoola Station homestead, which is approximately 39 miles from Tenterfield. Foundation drilling supplemented by a geophysical survey carried out by the Commonwealth Bureau of Mineral Resources disclosed unfavourable foundation conditions at all sites, the depth of alluvium overlying sound rock exceeding 150 feet in all cases. In an endeavour to obtain more economical storages, investigations were extended to tributary streams and superficially suitable sites have been located on Pike Creek and the Mole River. A geophysical survey was made at each of these sites and preliminary comparative estimates prepared to determine the relative economy of providing one large storage at Mingoola or two smaller storages on the tributaries. Following exploratory drilling of the tributary sites, a report is now being compiled for submission to the participating States.

The Irrigation and Water Supply Commission of Queensland is the constructing authority for the new weirs and regulators. The construction of Bonshaw and Cunningham Weirs on the Dumaresq River was completed in January, 1953 and June, 1954, respectively.

A weir and regulator has been constructed on the Barwon River at the offtake of the Boomi River. The construction of a low level weir to establish a pumping pool at Glenarbo on the Dumaresq River was complete at 30th June, 1959, except for the installation of a fish ladder. The existing Goondiwindi and Mungindi Weirs are being maintained, operated and controlled by the Queensland Irrigation and Water Supply Commission. Until a dam has been constructed, it is unlikely that any weirs, other than those referred to above, will be required.

The catchments for the border streams (2,000 square miles) extend to the granite areas in the vicinity of Tenterfield (New South Wales) and Stanthorpe (Queensland) and elevation rises to 3,000 feet. Average rainfall is 30 inches. The catchments and the areas suitable for irrigation are approximately equal in each State. Climatic conditions are such that it is necessary to supplement rainfall from April to October by irrigation to stabilize and increase production. The capacity of the area to grow lucerne and tobacco under irrigation has already been demonstrated. Other possible development of the area includes irrigation of cotton, root crops, cereals, and citrus fruit, and expansion of the fat stock industry.

4. Snowy Mountains Hydro-electric Scheme.*—Following a comprehensive investigation into both the water and power potential of the Snowy River waters by a Technical Committee representative of the Commonwealth and the States of New South Wales and Victoria in 1947 and 1948, and the submission by the committee of reports in 1948 and 1949, the Commonwealth Parliament in July, 1949, passed the Snowy Mountains Hydro-electric Power Act setting up an Authority to implement the proposals agreed upon.

* See also Chapter VII.—Electric Power Generation and Distribution, p. 226. For more detailed information see special article by the Commissioner, Snowy Mountains Hydro-electric Authority (Sir William Hudson) which appeared in Chapter XXIX—Miscellaneous, of Official Year Book No. 42.

The basis of the proposals is to impound the Snowy River waters at high elevations and, by diverting them into tunnels passing under the Alps, to use their potential power for the generation of electricity and then to discharge them into the Murray and Murrumbidgee River systems for use in the irrigation areas.

The Scheme involves two main diversions, the diversion of the Eucumbene, a tributary of the Snowy, to the Upper Tumut River and the diversion of the main stream of the Snowy River at Island Bend and Jindabyne to the Swampy Plain River. In addition, works required to make use of the waters of the Upper Murrumbidgee, the Upper Tumut, the Upper Tooma and the Geethi Rivers for power generation also provide additional regulation of these streams and this makes more water available for irrigation. Details of the two trans-mountain diversions and the associated power works together with details of progress and construction are given in Chapter VII.—Electric Power Generation and Distribution.

Additional water is now available for irrigation in the Murrumbidgee Valley and it is expected that this will amount to 500,000 acre feet per annum by 1963. When all works are completed, it is estimated that the total gain to the Murrumbidgee by diversion and regulation will amount to 1,120,000 acre feet per annum and the total gain to the Murray will be 800,000 acre feet per annum. This additional water should be sufficient to provide irrigation for approximately 1,000 square miles of land which should result in additional annual primary production to the estimated value of some £30 million per annum.

B. STATES AND TERRITORIES.

§ 1. Australian Local Pattern of Water Conservation and Use.

The foregoing sections deal with water conservation and irrigation in Australia generally and with national and interstate projects. The following survey indicates the local pattern of water resources and the steps taken by the State Governments to bring about their development. It will be seen that water policies in the various States tend to assume a distinctive and characteristic pattern closely allied with climatic conditions and specific local needs.

In Victoria, almost every form of water scheme is in operation. In New South Wales, major emphasis at present is on irrigation and stock development in the dry areas along the Murray and Murrumbidgee Rivers, though a substantial scheme of intensive irrigation is being conducted in the Murrumbidgee Irrigation Areas. In Queensland, up to the present, the predominant emphasis has fallen on water (mainly underground sources) for stock, and the development of small irrigation schemes in sub-humid and humid areas, especially to stabilize sugar production.

Apart from regular irrigation practices along the Murray River, South Australian authorities are vitally concerned with reticulated supplies for rural areas and towns. Western Australia has developed unique rock catchments and piped supplies for agricultural areas and towns in dry districts. Tasmanian interest relates almost exclusively to hydro-electric generation. The Northern Territory is concerned primarily with stock supplies and the safeguarding of long stock routes.

§ 2. New South Wales.

1. *General.*—(i) *Rainfall and History.* On page 1110 of Official Year Book No. 37, information is given on the pattern of rainfall and the history of irrigation in New South Wales. (See also Chapter II.—Physiography, p. 45, of this issue.)

(ii) *Administration.* The Water Conservation and Irrigation Commission of New South Wales consists of three members appointed by the Governor. The operations of the Commission cover water conservation, control of irrigation areas, the establishment, operation and maintenance of works for domestic and stock water supply, irrigation districts, flood control districts, sub-soil drainage districts, constitution of water trusts, the issue of licences for private irrigation, artesian and shallow boring, assistance under the provisions of the farm water supplies scheme, and river improvement works.

Under the Water Act, the right to the use and flow, and the control of water in all rivers and lakes which flow through, or past, or are situated within, the land of two or

more occupiers, is vested in the Commission for the benefit of the Crown. A system of licences operates for the protection of private works of water conservation, irrigation, water supply, drainage, and prevention of inundation.

For particulars of the New South Wales—Queensland Border Rivers Agreement ratified by Acts of both States in 1947, see page 259 of this chapter.

2. Schemes Summarized.—(i) *Location and Type.* The bulk of irrigated land is along the Murray and its tributary the Murrumbidgee. Smaller areas are served by the Wyangala Dam, Lake Cargelligo and Lake Brewster on the Lachlan, a tributary of the Murrumbidgee, by Glenbawn Dam on the Hunter River, by Keepit Dam on the Namoi River, and by the Menindee Lakes Storage on the Darling River, the latter project being substantially complete and already storing water. None of the other rivers is regulated by large head storages, though weirs and dams have been provided for town supplies, etc., in many places, and a head storage has been commenced on the Macquarie River. Substantial use is made of artesian and sub-artesian water in pastoral areas.

New South Wales legislation provides for the constitution and control of various schemes having different characteristics and including irrigation areas, irrigation districts, water trust districts, flood control and irrigation districts, and river improvement districts. There are nine irrigation areas although two of these, Yanco and Mirrool, are generally described under the one heading, namely, the Murrumbidgee Irrigation Areas. The Areas are:—The Murrumbidgee Irrigation Areas consisting of 451,251 acres served with water through a channel system stemming from the river at Berembend Weir; the Coomealla Irrigation Area of 34,672 acres, served by pumping from the Murray; the Curlwaa Irrigation Area of 10,549 acres, supplied from the Murray by pumping; the Hay Irrigation Area of 6,850 acres, supplied with water pumped from the Murrumbidgee; the Tullakool Irrigation Area of 18,006 acres supplied from the Edward River by diversion at Stevens Weir; the Buronga (8,693 acres) and Mallee Cliffs (1,900 acres) Irrigation Areas served by pumping from the Murray; and the newly established Coleambally Irrigation Area (21,015 acres), served by diversion from the Murrumbidgee River. All these Areas are administered by the Commission and details of the various schemes are given in subsection (iii) below.

(ii) *Works.* The capacities of the main storages (in acre feet) are:—

Murray:—Half share of Hume Reservoir, weirs and locks to Wentworth (1,011,420); Stevens Weir, Edward River (7,165).

Murrumbidgee:—Burrinjuck Dam (837,000); Berembend Weir (10,000); Redbank Weir (7,360); Maude Weir (6,740).

Lachlan:—Wyangala Dam (temporary reduced level 246,435); Lake Brewster (123,900); Lake Cargelligo (29,435); Jemalong Weir (2,200).

Hunter:—Glenbawn Dam (185,000 acre feet irrigation storage; 108,000 acre feet flood mitigation storage).

Water from the Hume Reservoir is used for domestic and stock purposes, to provide bulk supplies for country towns, for the irrigation of vines, fruits and fodder in the Curlwaa and Coomealla Areas, for fruit, vegetables and dairy products in the Buronga Irrigation Area, for horticulture and mixed farming in the Mallee Cliffs Irrigation Area, for rice and other cereals and for pastures in the Tullakool Irrigation Area, for domestic and stock supply and irrigation in the Berriquin, Wakool, Deniboota and Denimein Districts, and for water trusts for domestic and stock purposes and/or irrigation.

The Wyangala Dam is 30 miles upstream from Cowra in the Central West. It has a catchment of 3,200 square miles. Water from the dam, supplemented by the unregulated flow of the Belubula River, provides for domestic and stock purposes along the full length of the downstream river (approximately 800 miles) and also for irrigation by land holders operating licensed pumps. The towns of Cowra, Forbes, Condobolin, Hillston and Booligal are supplied. Balance storages at Lake Cargelligo and at Lake Brewster conserve water during periods of high flow for release as required. Water from the Lachlan, diverted at Jemalong Weir, supplies the districts of Jemalong and Wylde's Plains, serving an area of approximately 225,000 acres.

The approximate total length of supply channels (including main canals) constructed by the Water Conservation and Irrigation Commission in New South Wales is 3,272 miles. The approximate length of drains and escape channels is 1,100 miles, and the total length of pipe lines is approximately 68 miles, making a grand total of 4,440 miles of channels and pipe lines, etc.

(iii) *Extent of Systems and Nature of Irrigated Culture.* The following table shows the areas of the various irrigation systems and particulars of the areas under irrigated culture in New South Wales during 1959-60:—

AREAS OF SYSTEMS AND OF LAND IRRIGATED: NEW SOUTH WALES, 1959-60.

(Acres.)

System, etc.	Total Area.	Area Irrigated.										Total.
		Rice.	Other Cereals Grown for Grain.	Lucerne.	Other Fodder Crops.	Pastures.		Vineyards.	Orchards. (a)	Vegetables.	Fallow Land and Miscellaneous.	
						Sown.	Natural.					
Irrigation Areas—												
Murrumbidgee (within the Areas) ..	451,251	27,267	26,957	3,427	3,062	79,357	1,453	5,309	15,296	3,844	22,608	188,580
Lands adjacent supplied under agreement ..	(b)	..	1,110	229	112	266	1,560	2	73	4	100	3,456
Coomoalla ..	34,672	..	..	5	..	..	..	4,292	1,000	..	..	5,297
Curlwaa ..	10,549	..	..	..	39	..	..	454	1,110	..	..	1,603
Hay ..	6,850	..	..	113	409	2,026	80	..	..	..	..	2,628
Tullakool ..	18,006	927	225	60	..	7,473	..	..	..	..	645	9,330
Buronga ..	8,693	..	..	..	..	..	..	..	..	..	..	..
Mallee Cliffs ..	1,900	..	..	..	..	..	..	..	..	..	..	..
Coleambally ..	21,015	..	..	..	..	..	..	..	..	..	857	857
Total ..	c 552,936	28,194	28,292	3,834	3,622	89,122	3,093	10,057	17,479	3,848	24,210	211,751
Irrigation Districts—												
Benerambah ..	112,818	5,497	10,427	1,285	1,025	23,794	..	..	..	30	5,210	47,268
Tabbitta ..	10,745	355	550	50	90	1,945	..	..	..	..	220	3,210
Wah Wah ..	575,716	..	3,185	1,300	1,160	8,110	250	..	..	..	2,190	16,195
Berriquin ..	784,537	..	21,080	14,856	3,571	224,052	380	..	..	40	8,855	272,834
Wakool ..	502,475	7,724	3,580	1,511	1,993	67,453	670	..	..	45	1,960	84,936
Denimein ..	147,005	2,666	4,590	1,238	279	15,012	..	..	12	..	705	24,502
Jemalong and Wyldes Plains ..	224,556	..	3,373	5,734	..	10,330	..	..	..	..	2,725	22,162
Gumly ..	353	..	50	65	8	38	..	..	19	44	..	224
Deniboota ..	299,252	4,536	4,020	1,640	715	24,565	370	..	..	..	1,130	36,976
Total ..	2,657,457	20,778	50,855	27,679	8,841	375,299	1,670	..	31	159	22,995	508,307
Flood Control Districts—												
Lowbidgee ..	375,000	..	..	..	..	..	(b)	..	..	..	..	(b)
Medgun ..	272,800	..	..	..	..	..	(b)	..	..	..	..	(b)
Total ..	647,800	..	..	..	..	..	(b)	..	..	..	..	(b)
Irrigation Trusts—												
Pomona ..	1,580	..	..	..	..	..	..	770	130	..	..	900
Brangan ..	4,933	..	..	..	..	..	..	..	..	..	..	(b)
Bungunyah-Koraleigh ..	1,810	..	..	..	..	..	..	990	80	40	..	1,110
Glenview ..	661	..	..	..	..	..	..	..	..	..	..	(b)
Goodnight ..	1,167	..	..	..	..	..	..	548	41	1	10	600
Bama ..	3,446	..	..	..	..	..	..	..	..	..	..	(b)
Total ..	13,597	..	..	..	..	..	..	2,308	251	41	10	(c) 2,610
Water Trusts—Domestic and Stock Supplies ..	2,909,456	..	..	..	..	..	..	..	..	..	..	..
Grand Total(c) ..	6,781,246	48,972	79,147	31,513	12,463	464,421	4,763	12,365	17,761	4,048	47,215	d 722,668

(a) Citrus and deciduous. Deciduous amounted to 8,686 acres, of which 8,494 acres were in the Murrumbidgee Irrigation Area. (b) Not available. (c) Incomplete. (d) Excludes some Irrigation Trusts and Licenced Diversions for which information is not available.

3. Murrumbidgee Irrigation Areas.—(i) *Description.* These areas together with adjacent lands supplied under agreement, received 430,846 acre feet, or about a quarter, of the total water (1,584,857 acre feet) allocated within the State for stock, domestic supply and irrigation. They are served by the Burrinjuck Dam (capacity 837,000 acre feet), on the Murrumbidgee, 40 miles north-west of Canberra. The catchment above the dam is about 5,000 square miles. The river rises on the high plateau north of Mount Kosciusko where the average annual rainfall exceeds 60 inches. Flow for the irrigation areas and districts is supplemented by unregulated flow from the Tumut River below the dam. The dam also provides town supplies for Gundagai, Wagga, Narrandera, Hay, Balranald, and for towns served by the South-West Tablelands scheme.

Domestic and stock water and water for irrigation are supplied to the Irrigation Districts of Tabbita, Beneremba and Wah Wah and the Flood Control and Irrigation District of Lowbidgee. Flood flows are relied on to serve the Lowbidgee district and water is not released from the dam for that purpose. For the other undertakings, however, water is stored during the winter and spring freshets, fed by melting snows, and is released during the September-May irrigation season. It passes along the river channel to Beremb Weir, 240 miles westward, where it is diverted to the main canal with an off-take capacity of 1,600 cubic feet a second. The main canal has been completed to beyond Griffith, 96½ miles from the off-take. Reticulation channels aggregate approximately 879 miles and drainage channels 814 miles. In addition, approximately 446 miles of supply channels run through irrigation districts adjacent to the Murrumbidgee areas in which the water supply is operated and maintained by the Water Conservation and Irrigation Commission.

The land on which the Murrumbidgee Irrigation Areas are situated originally comprised large sheep stations and was sparsely populated. Population was 12,000 in 1923, 15,000 in 1929, 20,000 at the 1947 Census and 24,000 at the 1954 Census. At the 1954 Census, the population of the Yanco District (with Leeton as the centre) was 10,000 and the population of the Mirrool Area (with Griffith as the centre) was 14,000. At 30th June, 1959, the population of Leeton Shire was estimated at 10,550, and that of Wade Shire at 15,670.

(ii) *Administration.* The Water Conservation and Irrigation Commission controls land transactions and water supplies for the Murrumbidgee Irrigation Areas only and has no jurisdiction over land transactions in the adjacent irrigation districts, although it is responsible for the operation and maintenance of the water supply in these areas. Other local government services, including electricity and town water supply, are provided by Councils. Land is disposed of by the Commission under freehold or perpetual lease tenure or leased for short terms for grazing or cultivation. The area under occupation at 30th June, 1960, was 381,033 acres, including 37,444 held for short lease grazing, agriculture, etc.

(iii) *Production.* Since the inauguration of the scheme in 1912, the volume of production from the area has greatly increased. Numbers of new crops are grown while the volume of the major products of the area prior to the scheme, such as wool and livestock for slaughtering, has expanded considerably. The principal products to-day are: wool, livestock for slaughtering, rice, citrus fruits, peaches and nectarines, grapes, tomatoes, peas, beans and root vegetables.

Rice growing was initiated on the Murrumbidgee Irrigation Areas in 1924 and has since become the most important crop grown in the area. In 1959-60, the total area sown was 27,267 acres and the total quantity of water delivered for the rice crops was 161,955 acre feet. In a normal season, the water supplied for rice represents about one-half of the total delivered to the Murrumbidgee Irrigation Areas.

Co-operation is a prominent feature in the Murrumbidgee Areas. Co-operative organizations in the Mirrool section handle about 250,000 bushels of fruit a year (compared with 54,600 in 1927-28). The annual sales turnover of the Leeton cannery in recent years has approximated £2,000,000. Settlers and government agencies co-operate extensively in all matters relating to irrigation practice.

4. Other Irrigation Areas.—The Curlwaa, Coomealla, Hay, Buronga, Mallee Cliffs, Coleambally and Tullakool Irrigation Areas follow the same administrative pattern as the Murrumbidgee Areas—that is, land transactions are administered by the Water Conservation and Irrigation Commission which is responsible also for the operation and maintenance of works to supply water.

Curlwaa Area, on the Murray near Wentworth, consists of 10,549 acres of which 7,839 acres were occupied at 30th June, 1960. Production consists of dried vine fruits, deciduous fruits and fodder crops.

Coomeealla Area, 9 miles upstream from Curlwaa, comprises 34,672 acres of which 30,869 acres were occupied at 30th June, 1960. Production consists of vine and citrus fruits. An extension of the Coomealla Irrigation Area was completed in recent years to provide irrigation farms for ex-servicemen, and 100 ex-servicemen were placed on the new farms.

Tullakool Area, formerly part of the Wakool Irrigation District, comprises 18,006 acres of which 14,394 acres are occupied. Main products are fat lambs, wheat and rice.

Hay Area, on the lower Murrumbidgee, consists of 6,850 acres, of which 6,319 acres are occupied. Production comprises dairy products, fat lambs, sheep, wool and fodders.

Buronga Area, on the Murray River, upstream from Wentworth, consists of 8,693 acres, of which 1,176 acres are occupied. Production is mainly fruit, vegetables and dairy products. Mallee Cliffs is also upstream from Wentworth, its area being 1,900 acres, of which 1,332 acres are occupied.

Coleambally area, a new area served by the Coleambally Canal off-taking from the Murrumbidgee River upstream from Gogeldrie Weir, has an area of 21,015 acres, of which 20,033 acres are occupied. Production is expected to be mainly fat lambs, wool, beef, citrus fruit and peaches, with rice growing being allowed in the initial stages.

5. Irrigation Districts.—These Districts are set up under the Water Act for (a) domestic and stock water supply and (b) irrigation. They differ from water trusts in that the cost of the works is not required to be repaid over a period, but annual charges are made by the State for water supplied to landholders. The following are the districts or provisional districts constituted and the areas of land benefited:—*Murray River*—Wakool District (completed) 502,475 acres, Berriquin Provisional District 784,537 acres, Deniboota Provisional District 299,252 acres, Denimein Provisional District 147,005 acres, Jernargo Provisional District (certain portions of which have been included in Berriquin District) 4,325 acres, Barramein Provisional District (domestic and stock supply only—works not yet commenced) 89,080 acres; *Murrumbidgee River* (completed)—Benerembah District 112,818 acres, Tabbitta District 10,745 acres, Wah Wah District 575,716 acres, Gumly Provisional District 353 acres; *Lachlan River* (completed)—Jemalong and Wyldes Plains Districts 224,556 acres.

Since the completion of the Hume Reservoir, several such districts have been established along the Murray to utilize the New South Wales share of the storage. Water is not available for the whole of the 5,000,000 acres adjacent to the Murray in New South Wales, and therefore the schemes are based on "extensive" irrigation, that is, water rights are allotted to holdings on the basis that only a portion of each holding (one acre in three, five or ten, according to the district, etc.) will be irrigated, but additional water, when available, may be obtained by landholders. "Water right" means right to such a quantity annually of water, 12 inches deep, as will cover an area of one acre.

Water to serve Berriquin, Deniboota and Denimein Districts is diverted through a main canal which will be 100 miles long when completed. Water for the Wakool Irrigation District and the Tullakool Irrigation Area is diverted from the Edward River at Stevens Weir, and a supplementary supply is also obtainable from Mulwala canal. At 30th June, 1960, the total length of completed canals and channels in Berriquin District was 979 miles, including Mulwala canal 75 miles, Berrigan channel 22 miles, subsidiary channels 776 miles, escape channels 96 miles and cross drainage channels 10 miles. Off-take capacity of the Mulwala canal is 5,000 acre feet a day.

Wakool, with 384 miles of channel, contains 306 holdings and the area developed by irrigation comprises about one acre in eight of the total area. The total area irrigated in 1959–60 was 84,936 acres and water supplied was 142,907 acre feet. Crops comprised fodders, pastures, rice, cereals and vegetables, but sheep raising is the main industry.

Considerable subdivision has occurred within the Berriquin District and the proportion of the total area developed for irrigation is higher than in the case of Wakool. Total irrigated acreage was 272,834 at 30th June, 1960. Sheep and wheat growing are the main industries. The fat lamb industry is well developed and expanding. Dairying is making headway, and a butter factory has been established at Finley.

In the Benerembah, Tabbitta and Wah Wah Districts, supplied from the channels of the Murrumbidgee Irrigation Areas, the quantity of water supplied during the 1959–60 season for irrigation, etc., was 127,698 acre feet, and the area irrigated was 66,673 acres, including rice and other cereals, pastures, and fodder crops.

For the same season, 25,431 acre feet of water were supplied from the Lachlan River to irrigate a total area of 22,162 acres within the Jemalong and Wyldes Plains Districts.

6. Water Trust Districts, Irrigation Trusts and Flood Control and Irrigation Districts.—The Water Act provides for the constitution of Trust Districts for domestic and stock water and irrigation and empowers the Commission to construct, acquire or utilize necessary works. When the works are completed, they are handed over to trustees to administer. The trustees are elected by the occupiers of the land and act with a representative of the Commission. They are empowered to levy and collect rates covering the cost of the works

repayable to the Crown by instalments and also the cost of operation and maintenance of the works. The rates are struck according to the area of land which benefits. The following water trusts—other than irrigation—have been constituted (the area in acres of each district is shown in parentheses)—*Murray River*—Tuppal Creek (78,080), Bullatale Creek (68,320), Little Merran Creek (157,440), Poon Boon (34,300), Minnie Bend Flood Prevention (2,190); *Murrumbidgee River*—Yanco, Colombo and Billabong Creeks (1,001,210); *Lachlan River*—Torrigan, Muggabah and Merrimajeel Creeks (170,240), Condobolin West Weir (4,480), Marrowie Creek (292,640), Ulonga (64,960), Micabil Weir (11,500); *Miscellaneous*—Algudgerie Creek (9,760), Nidgerie Weir (46,880), Great Anabranch of Darling River (967,339), Collarenebri town water supply (117)—making in all a total area of 2,909,456 acres. Thirteen of these trusts have been formed for the provision of water for domestic and stock purposes, one for a town supply and one for flood prevention.

Irrigation Trusts are established under the same Act and are administered by trustees in a similar way. The following are the Trust Districts (area in acres is shown in parentheses):—*Murray River*—Bama (3,446), Goodnight (1,167), Bungunyah—Koraleigh (1,810), Glenview (661), Brangan (4,933); *Darling River*—Pomona (1,580)—making in all a total area of 13,597 acres.

The Lowbidgee Provisional Flood Control and Irrigation District (375,000 acres), the first of its kind, was constituted in 1945. Its purpose is to provide flood irrigation for pasture lands on the lower Murrumbidgee by water diverted from the Maude and Redbank Weirs. There are 50 holdings. Another district, Medgun (272,800 acres) near Moree in the North-West is also in operation. There are 20 holdings in the district and the area benefited by controlled floodings is 57,710 acres.

7. River and Lake, and Farm Water Supplies.—During recent years, the numbers of licences and permits issued to individuals to draw water from rivers and lakes for irrigation have increased substantially, especially along the coastal streams in sub-humid districts where the value of supplementary irrigation is becoming more recognized as a means of stabilizing production in dry months. There has also been a considerable increase along the Murrumbidgee and Lachlan.

The Farm Water Supplies Act was passed in 1946. Technical advice and assistance, and also financial assistance, are made available to help individual farmers and groups of farmers to provide and improve water supplies for domestic, stock and irrigation purposes by means of wells, bores, excavated tanks, weirs or dams, flood and spray irrigation systems.

8. Underground Water.—Extensive use is made of artesian, sub-artesian, and shallow underground water. Nearly eighty thousand square miles in the northern and western portions are covered by the Great Artesian Basin. Eighty-nine Bore Water Trusts and 12 Artesian Wells Districts have been constituted. The Bore Trusts are administered in the same way as Water Trusts, but in Artesian Wells Districts settlers maintain the drains. Bore Trusts and Artesian Districts cover over 5 million acres and water is distributed through approximately 8,000 miles of open earth drains. The number of artesian bores giving a flowing or pumping supply at 30th June, 1960, was 1,071 and the estimated total daily flow from approximately 600 flowing bores was 66 million gallons. The estimated flow in 1914–15 was 99 million gallons a day from 372 bores. The deepest bore is Boronga No. 2 (4,570 feet), which also has the greatest flow, namely, 992,940 gallons a day. Of the total number of bores sunk, 246 have been installed by the Government in connexion with public watering places, Bore Water Trusts or Artesian Wells Districts.

Of other structural basins of sedimentary rocks, e.g. Murray, Cumberland (Sydney), Oxley and Clarence Basins, the Murray is the largest and also the most important in that it affords stock water supplies over an extensive area of the south-western section of the State. Only a few of these bores flow, the remainder being sub-artesian. Good supplies for stock and, in some instances, small scale irrigation, are obtained from porous sandstone in the Moss Vale-Picton area of the south-western lobe of the Cumberland Basin but the remainder has limited potential. Stock supplies are obtained from bores in the fringe zones of the Oxley Basin but the centre of this basin lies under the Liverpool Range. The Clarence Basin is relatively unimportant from a groundwater viewpoint.

In other parts of the State, the largest and best quality groundwater supplies are obtained from sands and gravels in the alluvium of the major rivers and their tributaries, particularly the western flowing rivers, e.g. Lachlan, Macquarie and Namoi. Supplies of up to 50,000 gallons an hour are obtained from wells and screened bores in these areas and are used for irrigation purposes. The Government is carrying out investigations to determine the groundwater potential of the alluvium of such valleys, particularly with regard to irrigation use, and a test-boring programme is in progress in the Lachlan Valley. Coastal river systems have a much more limited potential in this regard, the main exception being the Hunter.

Old sand dune areas along the coast provide large supplies of good quality water. However, since the soils of these areas are not suited to agricultural pursuits, exploitation has been largely confined to the Sydney and Newcastle areas. Initially a source of Sydney's water supply, the Botany sands are now utilized mainly by industry. The Tomago sands provide a considerable proportion of the Newcastle water supply.

The older rocks, which are mostly folded and jointed, are very variable in their groundwater potential and only rarely do they yield supplies sufficient and suitable for limited irrigation. Where suitable conditions obtain they yield useful stock supplies, mostly at depths between 50 and 250 feet.

It is necessary under the 1955 amendments to the Water Act that all wells and bores be licensed and details of over 14,000 bores and wells in the State are recorded. When assessed in relation to the geologic and topographic conditions of any particular area, such records provide valuable evidence of the groundwater potential and are thus of considerable benefit to landholders.

Since 1912, the Government has assisted settlers in shallow boring operations for which repayments are required over a period. To 30th June, 1960, the number sunk by the Commission's plants was 5,094 and their average depth was 308 feet.

9. Future Programme.—The programme of post-war development already in hand includes the provision of additional dams and storages, diversion weirs, and flood mitigation and river protection works in various parts of the State. Construction of Burrendong Dam on the Macquarie River is in progress. Legislation has been passed authorizing the construction of a flood control and irrigation dam at Warkworth in the Hunter Valley and a storage dam at Blowering on the Tumut River. The Menindee Lakes storage project, part of the scheme for conserving the waters of the Darling River, is approaching completion. The Hunter River development, of which Glenbawn Dam is an integral part, concerns an exceptionally fertile coastal valley, forming the hinterland to Newcastle, where the annual rainfall is not heavy and variations from month to month are considerable. This is the first coastal scheme initiated in New South Wales. At 30th June, 1960, a diversion weir at Gogeldrie on the Murrumbidgee River was supplying water to a number of farms in a new irrigation area (Coleambally) on the south side of the river to comprise not less than 1,000 new irrigation farms. Later development will extend to a new area on the north side of the river. At Wyangala Dam, on the Lachlan River, the fixed crest of the dam spillway has been lowered temporarily to enlarge the spillway for passage of greater floods. Investigations are being made concurrently to determine whether the dam can be increased in height to provide a greater storage.

10. Hydro-electricity.—A survey of the use of water for power generation in New South Wales may be found in the previous chapter (*see p. 232*).

§ 3. Victoria.

1. General.—(i) *Rainfall.* Particulars of the rainfall pattern of Victoria were given on page 1117 of Official Year Book No. 37. (*See also Chapter II.—Physiography, p. 45, of this Year Book.*)

(ii) *Administration.* The passing of the Irrigation Act of 1886 put the control of surface waters under the Crown, provided for the establishment of Irrigation Trusts and marked the beginning of irrigation development. In 1905, the Water Act established the State Rivers and Water Supply Commission and gave it control of all irrigation, rural domestic and stock supplies, town water supplies, and flood protection and drainage undertakings outside the Metropolitan area, with the exception of the irrigation area operated by the First Mildura Irrigation Trust and the town water supplies operated by locally constituted waterworks trusts or local governing bodies.

The operations of the First Mildura Irrigation Trust, the waterworks trusts and local governing bodies administering town water supplies, the river improvement and drainage trusts and the various sewerage authorities which control sewerage undertakings in country towns, are also subject to general supervision by the Commission.

2. Works Summarized.—In 1902, a great drought emphasized the need for a concerted attack on water problems. Subsequent to the establishment of the State Rivers and Water Supply Commission the total capacity of storages controlled by that Commission has increased from 172,000 to 4,236,310 acre feet at 30th June, 1960. In addition, River Murray

storages with a combined capacity of 2,022,840 acre feet are shared equally by New South Wales and Victoria under the River Murray Waters Agreement, subject to certain obligations to South Australia. The total storage capacity available to Victoria is thus some 5,247,730 acre feet. Most of the water from these storages is used for irrigation. The area actually irrigated has risen from 105,000 acres in 1906 to 1,052,782 acres in 1959-60 to which 1,527,679 acre feet of water were delivered. The Commission estimated the value of irrigated production in 1958-59 at £55,175,000 representing about one-sixth of the value of Victoria's total rural production.

Besides supplying water to its own irrigation districts, the Commission supervises the diversion of water for irrigation by private persons by means of licences and permits. In the last ten years, the area so licensed has doubled and private diverters now provide a sixth of total irrigation production.

A notable development in the post-war years has been Soldiers' Settlement Schemes based on irrigation. Altogether, nearly one thousand holdings have been prepared for settlers, including more than 500 in the Murray Valley District, 250 at Robinvale and 125 in Gippsland.

Town water supply and sewerage works and land drainage, flood protection and river improvement works serve many thousands of people. A domestic and stock water supply is given to various rural areas throughout the State, but principally to the Wimmera and Mallee about which a detailed description is provided later in this chapter.

3. Storages.—The capacities of the main storages in the various systems (in acre feet) at 30th June, 1960, were as follows:—

Goulburn System:—Eildon Reservoir, 2,750,000; Waranga Reservoir, 333,400; Total, 3,104,100; *Murray-Loddon System*:—Half share of River Murray storages, 1,011,420; Cairn Curran, 120,600; Tullaroop, 60,000; Total, 1,340,230; *Wimmera-Mallee*:—Rocklands, 272,000; Total, 538,900; *Gippsland*:—Glenmaggie, 154,300; Total, 154,340; *Coliban*:—62,730; *Werribee-Bacchus Marsh*:—34,900; *Mornington Peninsula*:—5,800; *Otway*:—1,080; *Miscellaneous*:—5,650; *Grand Total*:—5,247,730.

4. Extent of Systems and Nature of Irrigated Culture. The following table shows the areas of the various irrigation systems and the areas under irrigated culture during 1959-60.

AREAS OF SYSTEMS AND OF LAND IRRIGATED: VICTORIA, 1959-60.
(Acres.)

System.	Total Area.	Area Irrigated.									Total.
		Cereals.	Lucerne.	Other Fodder Crops.	Pastures.		Vineyards.	Orchards.	Market Gardens.	Fallow and Miscellaneous.	
					Sown.	Natural.					
Goulburn-Loddon ..	1,257,023	15,789	16,965	7,573	379,737	23,160	254	20,633	3,427	8,392	475,930
Murray—											
Torrumbarry ..	340,986	6,586	5,137	3,657	179,521	32,208	4,271	1,568	1,573	3,982	238,503
Murray Valley Irrigation Area ..	267,810	1,936	8,095	414	91,652	2,029	13	5,253	459	107	109,958
Pumping(a) ..	80,736	45	469	209	579	582	36,112	2,824	264	578	41,662
Total	689,532	8,567	13,701	4,280	271,752	34,819	40,396	9,645	2,296	4,667	390,123
Other Northern Systems(b)	19,735	419	1,448	..	8,784	1,019	5	3,532	619	4	15,830
Southern Systems ..	149,252	272	1,718	723	54,114	4,498	..	561	5,078	1,229	68,193
Private Diversions(c) ..	(d)	1,379	7,866	1,307	59,881	9,844	3,123	5,241	9,208	4,857	102,706
Grand Total ..	2,115,542	26,426	41,698	13,883	774,268	73,340	43,778	39,612	20,628	19,149	1,052,782

(a) Includes First Mildura Irrigation Trust.

(b) Area of Campaspe District only.

(c) Excludes private

diverters in the Toorumbary System, but includes all other private diverters along the River Murray.

(d) Not

available. (e) Incomplete; excludes Private Diversions.

5. *Irrigation Systems.*—(i) *Goulburn.* The storage capacity for this system is provided principally by Eildon Reservoir. The enlargement of the storage capacity of this reservoir was completed in 1956, and will enable 600,000 acres to be irrigated when the necessary distributary works are completed. Water from Eildon Reservoir flows down the Goulburn River to the Goulburn Weir, located near Nagambie. This raises the summer level of the river about 45 feet for the purpose of diversion. From this Weir, water is diverted via the East Goulburn Main Channel direct to the irrigation areas around Shepparton. The western main channels from the Weir convey water to the Waranga Reservoir near Murchison in addition to supplying part of the large Rodney Area directly.

Two main outlet channels issue from Waranga Reservoir. One serves the western section of Rodney Area while the other serves Irrigation Areas as far west as Boort, and continues into the Wimmera-Mallee Domestic and Stock System to provide a supplementary supply as far as Beulah East (*see* (iv), below).

Water is also supplied to part of the Goulburn System from Cairn Curran Reservoir on the Loddon River, and from Tullaroop Reservoir on one of its tributaries. Eildon itself may be used to supplement supply to the districts along the Murray River.

The main products of the Goulburn system are dairy produce, fruit, wool and fat lambs. Annual production of deciduous canning fruits in the area is about two-thirds of Australia's total.

(ii) *Murray River System.* The waters of the River Murray are used to supply an area of approximately 700,000 acres between Yarrawonga and Merbein. The districts between Yarrawonga and Swan Hill, except Tresco near Swan Hill, are supplied by gravitation and those west of Swan Hill by pumping.

The Murray Valley Irrigation Area, which is served from Yarrawonga Weir, comprises 268,000 acres west of Yarrawonga between the River Murray and Broken Creek. Dairy products, fat lambs and canning fruit are the main items produced.

The gravitation system based on Torrumbarry Weir (52 miles downstream from Echuca) serves an area of about 378,000 acres around Cohuna, Kerang, Koondrook and Swan Hill. (Also included in the Torrumbarry System is the Tresco District supplied by pumping from Lake Boga.) Dairying and fat lamb raising are the major industries. Vine fruits and vegetables are grown around Swan Hill and tobacco growing is increasing in importance.

West of Swan Hill lie four Commission districts with a pumped supply—Nyah, Robinvale, Red Cliffs and Merbein. These contain about 1,500 holdings devoted mainly to dried vine fruit although citrus fruit and table and wine grapes are of some importance. The area around Mildura is controlled by the First Mildura Irrigation Trust, the only irrigation trust operating in Victoria. It serves an irrigated area about half the combined size of the four Commission districts and has similar major products.

(iii) *Southern Systems.* The most important southern system is an area of 130,000 acres around Maffra and Sale, mainly devoted to dairying. This is supplied from Glenmaggie Reservoir on the Macalister River and from the natural flow of the Thomson River when the flow is adequate. Other important irrigation districts are located quite close to Melbourne around Werribee and Bacchus Marsh. These districts are intensively developed for dairying and vegetable growing.

(iv) *Wimmera-Mallee Domestic and Stock Supply System.* This system serves an area of 11,000 square miles or nearly one-eighth of the State. Without the artificial supply of water, development in this area would be meagre and hazardous owing to the constant threat of drought. The main supply is drawn from the Grampians storages and can be supplemented by water drawn from the Goulburn and Loddon Rivers, via the Waranga Western Channel referred to previously. Works in progress will make the Wimmera and Mallee independent of supplies from the Goulburn and Loddon River in the near future. In addition, certain areas in the north of the system are supplied direct from pumps on or near the River Murray.

As far as possible, water is distributed in the winter and spring to reduce evaporation losses in 6,500 miles of Commission channels and 3,000 miles of farm channels. It is the

responsibility of the 7,000 farmers served to provide sufficient storage capacity on their farms to meet their domestic and stock needs for the year. In addition to meeting rural and domestic demand, together with stock requirements, the Grampians storages provide a water supply for more than 40,000 people in 47 towns and are used to irrigate a small area near Horsham.

6. Town Water Supplies and Sewerage.—Details of the operations of the State Rivers and Water Supply Commission which supervises water supplies and sewerage for country towns and local government authorities are given in § 5 of Chapter XIX., Local Government, of this Year Book.

7. Drainage, Flood Protection and River Improvement.—The largest work in this category undertaken by the State Rivers and Water Supply Commission is the Koo-wee-rup-Cardinia Flood Protection District embracing 80,000 acres of a continuous depression along the seaboard of Westernport. Once useless, indeed a hindrance to communication, this area now yields primary products worth over £3 million a year.

Another large-scale work, which was completed during 1958–59, is the drainage of 12,500 acres of privately owned land flooded by a recent rise in the level of Lake Corangamite in the Western District. This freed a large area of the lake for grazing in normal years.

By the River Improvement Act of 1948, the formation of local river improvement and drainage trusts under the supervision of the Commission has been greatly facilitated and since 1950, 19 such trusts have been formed. The importance of river improvement work is expected to continue to grow.

8. Finance.—The capital liability of the Commission at 30th June, 1960, was £98,500,000. Of this amount, £66,500,000 was expended on irrigation and £7,000,000 on domestic and stock supply systems. Both these amounts were financed entirely by the State. The total liability for urban supply was £13,000,000 of which 48 per cent. was borne by the State and the remainder by the districts concerned.

9. Underground Resources.—The active investigation of a survey of these resources is being carried out by the Mines Department. Their deep drilling plant has located suitable water for town supplies at Portland, Heywood, Port Fairy and Timboon. Other drilling plants are engaged in other parts of the State and up to date over 60 wells have been successfully completed.

The Murray Artesian Basin underlies an area of 107,250 square miles, of which 26,808 square miles are in Victoria, 28,269 square miles in South Australia and 52,173 square miles in New South Wales. The quality of the water varies from suitable for domestic purposes in much of the south-western part of the basin to saline and suitable for stock in the rest of the basin. There are innumerable bores in Victoria ranging to 6,000 feet in depth. Some individual bores can yield up to 2,000,000 gallons a day. In the last few years, the Victorian Department of Mines has expanded considerably the work of exploration for underground water.

10. Future Programme.—The main work under construction is the enlargement of the channels of the Goulburn System to distribute the extra water now available from Eildon, Cairn Curran and Tullaroop Reservoirs. A considerable amount of this work has already been carried out. Other large projects under construction are the enlargement of Eppalock Reservoir on the Campaspe River to a capacity of 250,000 acre feet and important new works in the area known as Carrum Drainage District.

11. Hydro-electricity.—Details of hydro-electricity potential and utilization in Victoria may be found in the previous chapter (*see p. 235*).

§ 4. Queensland.

1. General.—(i) *Rainfall.* Particulars of the rainfall pattern of Queensland are given in Official Year Book No. 37, page 1122. (*See also Chapter II.—Physiography, page 45, of this Year Book.*)

(ii) *Administration.* The administration of irrigation and water supply in Queensland is under the control of a Commissioner of Irrigation and Water Supply. For a description of the development of the present administration, see Official Year Book No. 42 and earlier issues.

(iii) *Water Utilization in Queensland.* Queensland's predominant interest in the field of water conservation is the provision of stock and domestic water supplies in its great pastoral areas which contain more than 40 per cent. of the Commonwealth's cattle and about a seventh of the sheep. In addition to the stabilization of water supplies in the pastoral areas and the provision of water along stock routes for travelling stock, the development of irrigated pastures on the eastern seaboard for fattening stock adjacent to meat works and markets has received much attention in later years. The development of projects of water conservation and irrigation on individual farms for irrigation of pastures and fodder crops for dairy herds and for growing small crops and orchard fruits has also received attention.

As a large portion of Queensland is tropical, the State's crops differ considerably from those of other States. Sugar-cane is the greatest individual crop, representing in value approximately 46 per cent. of total agricultural production. Approximately 21 per cent. of the sugar-cane acreage was irrigated in 1959-60 and this represented some 41 per cent. of the total irrigated area in Queensland. Queensland is also Australia's major tobacco-producing State, and plans are in hand to increase greatly the annual production of this crop by means of development under irrigation. The area of tobacco irrigated during 1959-60 represented 97 per cent. of the total plantings of this crop in the State.

2. *Great Artesian Basin.*—(i) *General.* Western Queensland, beyond the 20 inch rainfall belt, is predominantly pastoral and is mainly dependent for water supplies on artesian and sub-artesian bores and, where surface storage is not readily available, on excavated tanks. The Great Artesian Basin in Queensland corresponds approximately with the area lying west and south of the Great Dividing Range, excluding the Cloncurry Mineral Field and the Barkly Tableland. It comprises 430,000 square miles or about two-thirds of the total State area of 667,000 square miles.

(ii) *Artesian Water.* Although the number of bores has gradually increased over the years, the total flow of all bores has declined since the peak flow of 351 million gallons a day was recorded in 1914. By 1938, the flow had fallen to 230 million gallons a day. This decline gave rise to the fear that supplies from the basin would eventually cease. As a result, in 1939, the Queensland Government appointed a committee to ascertain the nature and structure of the Great Artesian Basin, with particular reference to the problem of diminishing supply. The final report, which was presented in 1954, indicated that the majority of the Committee expected the output to continue its decline during the next sixty years, at which stage the flow from the remaining flowing bores would be of the order of 110 million gallons a day. The discharge from windmills, springs and other leakages, together with the underflow past the Queensland borders would then be about 20 million gallons a day. It was further expected that the total discharge, of the order of 130 million gallons a day, would be in equilibrium with the recharge of the basin.

It was anticipated that numbers of bores on higher ground would cease to flow during the next sixty years and the area served by flowing bores would contract by perhaps 20 per cent.

At 30th June, 1960, 2,677 artesian bores had been drilled of which 1,779 were still flowing. The total depth drilled amounted to 3,755,774 feet and the estimated daily flow was 208 million gallons. Although very few bores exceed 2,000 feet in depth (the average depth is 1,408 feet) and a new bore greater than 3,000 feet deep is exceptional, the deepest bore recorded was sunk to 7,009 feet. Some bores which had been classified as "ceased" have been inspected and found to be still flowing, while other ceased bores have responded to deepening and have recommenced flowing. Both the pressure and flow of artesian bores is steadily diminishing, the rate of decrease varying widely throughout the basin. Present average rates of diminution are:—pressure 1-2 feet/head; total flow, 2-3 per cent. per annum.

The greater part of the artesian discharge is distributed by open earth channels which total some 15,500 miles in length. A large proportion of the water flowing along these channels is lost by soakage and evaporation, less than 10 per cent. being actually used by stock. The amount of loss through soakage depends on several factors, including the

permeability of the earth, the rate of evaporation (which varies from season to season), and the shape and maintenance of the drains. More effective utilization of this water could be obtained by the use of piping to overcome the loss by soakage and evaporation in the open earth channels.

Although artesian beds underlie a large area of the State, only 79,000 square miles are primarily watered by bore drains. The remaining area is watered by artesian bores (with small or no flow and limited drains), sub-artesian bores, excavated tanks, dams and natural waterholes. In many districts, artesian bores do not provide economical watering facilities because of depth, limited area to be watered, and difficult terrain for distribution of water by drains.

The quality of artesian water from the greater part of the basin is not suited for prolonged use for irrigation on most soils nor are the supplies sufficient for both large scale irrigation and stock-watering. Practically the whole of the final steady-rate discharge from flowing bores will be needed for the watering of stock.

A programme of strict conservation, involving the restriction of bore flows and the improvement of bore drains, would result in smaller shrinkage of the area served by flowing bores and would actually cost less than the installation and maintenance of pumps or other watering facilities which would be required to provide alternative water supply as additional bores ceased to flow because of a policy of non-restriction. On the other hand, strict conservation would not increase the amount of water ultimately available as perennial flowing supply and would in fact decrease the amount of water passed from intake beds to aquifers within the basin by flattening the hydraulic gradient. It is considered that the benefit from strict conservation was not sufficiently great, nor sufficiently concrete, to warrant implementation.

Shallow sub-artesian supplies, which come from beds unconnected with artesian beds, are of variable quality and volume. These supplies are available at depths of less than 1,000 feet over a large area of the basin. Some 9,740 sub-artesian bores, within the Great Artesian Basin, have been registered in Queensland. An essential practical consideration is that the main artesian beds are continuous and the sub-artesian beds are not continuous.

Detailed surveys of numerous other sources of underground water in the State, such as the smaller sedimentary basins, the Cainozoic alluvial deposits, recent coastal sands and fractured older rocks, still largely remain to be carried out.

(iii) *Bore Water Areas.* The constitution of Bore Water Areas was inaugurated in 1913 to aid pastoral settlement in districts where large flows were available at a cost beyond individual capacity and to conserve artesian supplies by fully utilizing the flows from the existing bores on the land resumed for closer settlement. Bores and drains are constructed from loan funds repayable over a period of years. The areas are administered by Local Boards or by the Commissioner of Irrigation and Water Supply, acting as a Board. Rates are levied to meet interest, redemption, maintenance and administration costs. Statistics for the year 1959-60 are:—Areas constituted, 72; administered by Commissioner, 56; administered by local boards, 7; number abolished, 9; area benefited, 3,852,566 acres; average rate per acre, 1.01d.; number of flowing bores, 58; total flow, 24,936,000 gallons a day; drains served, 2,625 miles.

3. *Other Basins.*—Two major areas bordering the Great Artesian Basin in Queensland carry artesian water. One is located on the western slopes of Cape York Peninsula and the other in the Dawson-Mackenzie River (Bowen) Basin. A small area in which flowing wells occur (the Gatton Basin) extends from Gatton to the coast.

Sub-artesian water supply from the Barkly Basin which extends into western Queensland from the Northern Territory, is referred to in the section dealing with the Northern Territory.

4. *Stock Route Watering.*—During 1935, a scheme was inaugurated to water adequately stock routes in the western portion of the State including main trunk routes connecting Eromanga to Burketown, Charleville to Normanton, and Clermont to Einasleigh, with branches to railheads, a total distance of 3,117 miles. Watering facilities were also provided on subsidiary routes. Under the Stock Routes and Rural Lands Protection Act of 1944, a co-ordinating board was constituted, representative of Government departments and pastoral interests, under the direction of the Minister for Lands and with an officer of that Department as superintendent whose duty was, *inter alia*, to investigate and implement a long-range, co-ordinated plan for adequate watering of all stock routes throughout the State. Natural waters are being supplemented by artificial facilities at intervals of

about 9 miles. Construction is supervised by the Irrigation and Water Supply Commission and by local authorities. Completed facilities are vested in local authorities for control and maintenance. From 1935 to 30th June, 1960, 496 facilities had been completed and at 30th June, 1960, 67 facilities were under construction or investigation.

5. **Irrigation.**—(i) *General.* Irrigation as a means of stabilizing and increasing agricultural production is continuing to receive attention in Queensland. In addition to the Theodore Irrigation Area on the Dawson River, orthodox projects served by a channel system have been developed at Clare, Millaroo and Dalbeg, all on the Burdekin River, and Gibber Gunyah on the Dawson River. St. George on the Balonne River is also being developed. Construction in the St. George Area is approaching completion and 20 farms have been opened, of which 18 are in production. The Mary River and Warrill Creek Valleys are being developed by the construction of Borumba and Moogerah Dams respectively. Construction of the main channel system within the Mareeba-Dimbulah Irrigation Area has continued and 51 farms are being supplied with water by gravity. In addition, 200 farms in this area have had their available water supply supplemented by releases made into various streams from the channel system. Because of the large variations in both monthly and annual river flows, major developments cannot be undertaken until large storage works are provided. Most irrigation in Queensland is undertaken by private farmers operating under licence and obtaining water by pumping from streams or from natural underground storages. There has been considerable development during recent years of individual water conservation projects (water harvesting) to provide storage for irrigation of pastures, fodder crops and small crops, and orchards. Where available, electricity is the most popular source of power for pumping and the principal areas supplied with electricity are the Burdekin Delta, the Lockyer Valley, and the Darling Downs.

It has been estimated that about two-thirds of the total area irrigated in Queensland is supplied from underground water. The main areas where these supplies have been developed extensively are the Burdekin Delta (Ayr-Home Hill Area), the Pioneer Valley, Callide Valley, Lower Burnett (Bundaberg Area), Lockyer Valley and Redland Bay. Similar development is taking place in other areas such as parts of the Darling Downs.

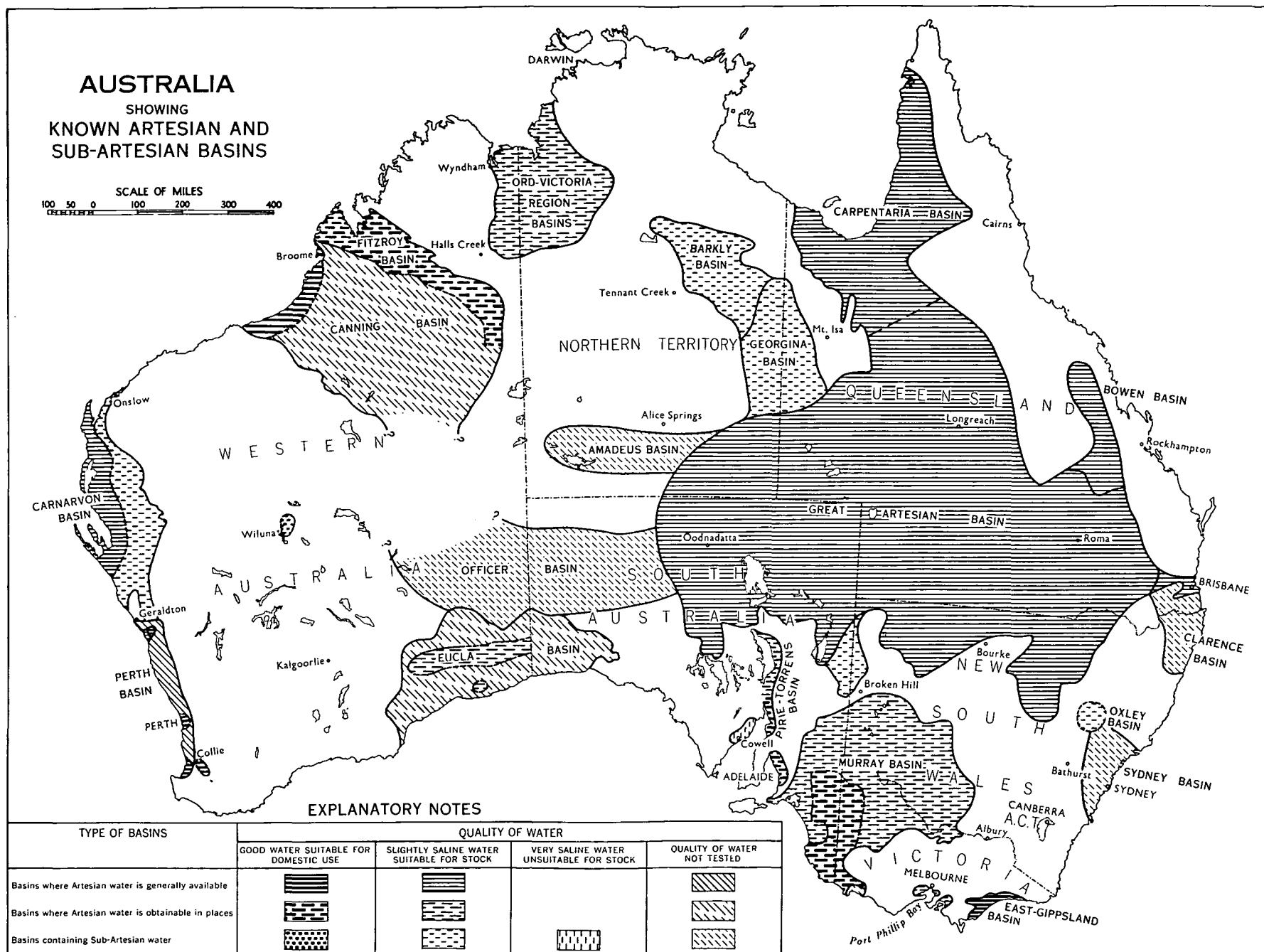
Furrow irrigation is used for cotton, sugar cane, most tobacco and some other crops. Spray irrigation is adopted to a considerable extent for fruit, vegetables, fodder crops and a small part of the tobacco. Spraying is well suited to the application of water on deep soils by small pumping plants, particularly when the quantity of water available is limited. Use of the border check method in the irrigation of pasture and fodder crops has proved successful and is increasing.

The following table shows for each division of the State the number of irrigators and the areas irrigated for the year ended 31st March, 1960.

AREA OF LAND IRRIGATED: QUEENSLAND, 1959-60.

Division.	No. of Irrigators.	Area Irrigated (Acres).							Total.
		Vegetables.	Fruit.	Sugar-cane.	To-bacco.	Cotton.	Other Crops.	Pastures.	
Southern Queensland ..	4,781	22,363	4,128	12,794	2,462	756	30,451	7,125	80,079
Central Queensland ..	528	854	255	3		1,410	4,528	1,065	8,115
Northern Queensland ..	1,580	3,990	829	49,549	6,794	413	1,136	1,231	63,942
Total	6,889	27,207	5,212	62,346	9,256	2,579	36,115	9,421	152,136

The pattern of irrigation in Queensland is unlike that in southern States; the more important developments in tropical and sub-tropical areas are therefore discussed briefly in the sub-sections following. The spring to autumn "irrigation season" of the temperate southern irrigated lands is not applicable, and round-the-year irrigation is required throughout most of the State, the timing and duration of the summer "wet" season being too variable to enable a definite non-irrigation season to be fixed.



Compiled from map "Underground Water" (1953) of the Atlas of Australian Resources and later information.

Department of National Development, Canberra, A.C.T. 1960

(ii) *Lockyer Valley.* West of Brisbane and within 30 miles of that metropolitan market is the Lockyer Valley, which is portion of the Brisbane River Basin. The valley comprises an extensive flood plain where heavy black alluvial soil thickly overlies gravels and sands carrying water suitable for irrigation. Despite a mean annual rainfall of 30 inches, the variation is great, and irrigation is necessary for continuous agricultural production. Surveys suggest that some 60,000 acres of land highly suitable for irrigation are available of which only about 30 per cent. is under irrigation. Most of the farmers operate electric pumps for irrigation purposes and a special policy designed to encourage such development is fostered by the Southern Electric Authority of Queensland. The Irrigation and Water Supply Commission has constructed a number of small weirs on Lockyer Creek with a total storage of 1,370 acre feet. These also tend to augment and conserve underground supplies. The Irrigation Research Station established at Gatton has been converted to a Regional Experimental Farm under the control of the Department of Agriculture and Stock.

The Lockyer Valley produces a substantial proportion of Queensland's onions, potatoes, pumpkins, lucerne, hay, green fodder, maize and dairy products.

(iii) *Burdekin River.* The Burdekin River, which enters the sea between Townsville and Bowen, is a major factor in the life of North Queensland. In most years, heavy floods from a catchment twice the size of Tasmania cause extensive damage and traffic disruptions. On the other hand, the fertile delta area, with its underground water supplies at shallow depth, has contributed greatly to the agricultural prosperity of North Queensland. Present development is confined to the delta area. The average annual rainfall of this area is some 41 inches, but the major part falls in the months December to March. Consequently sugar growers and other farmers have tapped the underground water resources of the delta to obtain supplies in the dry periods. Sugar is the main crop irrigated, though citrus fruits, pineapples, vegetables and tobacco are also irrigated. The irrigated area is in excess of 30,000 acres, up to 1,000 acre feet of water being drawn daily from underground sources.

In the Home Hill-Inkerman areas on the south side of the Burdekin, water is obtained from shallow wells by electric pumps supplied from a local power station controlled by the Townsville Regional Electricity Board. Around Ayr, on the north side of the river, electric power from the mains of the Townsville Regional Electricity Board is now being used in place of individual internal combustion engines. At both Home Hill and Ayr, water for domestic supply is raised by a windmill on each property.

In 1940, the Burdekin River Trust was formed to safeguard the sugar areas of the delta from erosion and floods. An irrigation research station studies the development of pastures and irrigated crops under local conditions.

A major multi-purpose scheme, involving irrigation, flood control and hydro-electric power generation, is being investigated by the various interested government departments under the general supervision of the Burdekin River Authority. The development envisaged includes a dam storing 6,584,000 acre feet, which would make water available for the irrigation of at least 250,000 acres. The principal industries anticipated are tobacco-growing, dairying, and cattle-fattening, with sorghum, sunflowers, peanuts, cotton and sugarcane as other possible forms of production. The projected scheme will transform the Burdekin into one of the Commonwealth's greatest resources for agricultural and industrial production.

The Clare Irrigation Area, constituted in 1949, the Millaroo Irrigation Area, constituted in 1952, and the Dalbeg Irrigation Area, constituted in 1953, are at present predominantly used for tobacco production. Located from 25 to 65 miles upstream from the mouth of the Burdekin, these areas comprise 12,000 acres and obtain irrigation waters from central pumping stations drawing initially on the unregulated flow of the Burdekin. A temporary storage of 7,670 acre feet capacity has been constructed about 79 miles upstream from the mouth of the Burdekin. At 30th June, 1959, 147 farms were occupied and total production for 1959-60 was valued at £973,000.

(iv) *Dawson Valley.* The Dawson River, a 392-mile long tributary of the Fitzroy River, rises in the Carnarvon Range and joins the Mackenzie River to form the Fitzroy 50 miles west of Rockhampton. Lands bordering the river in its northerly course of about 170 miles before its confluence with the Mackenzie River are commonly termed

the Dawson Valley. A scheme for the development of the Dawson Valley providing for the irrigation of 70,000 acres was inaugurated in 1923. Storage for the scheme was to be provided by a dam of 2,500,000 acre feet capacity at Nathan Gorge. Much investigational and survey work on the scheme was carried out, but the general financial depression and limited loan funds brought about the cessation of this work. However, the initial step in construction had been completed, comprising a weir on the river at Theodore and irrigation works to serve an area of 3,500 acres supplied from a central pumping station. Two additional weirs have since been built, giving a total storage of 10,280 acre feet. Pasture, vegetables, cotton, fruit and dairy products are the principal produce. Recently, further attention has been given to the former plans for the valley and earlier work is now under close scrutiny as a prelude to future development. Construction of works to serve some 2,400 acres at Gibber Gunyah, adjacent to the existing Theodore Area, has been completed and 17 farms have been occupied.

(v) *Mareeba-Dimbulah Area.* The existence of large areas of sandy soils suitable for tobacco production in the valleys of the Walsh and Barron Rivers in the neighbourhood of Mareeba and Dimbulah has led to large-scale investigations into possible irrigation development in the area. Surveys indicate that 40,000 acres of land suitable for irrigated culture, including 32,000 acres suitable for tobacco, are available. In 1959-60, some 5,500 acres of high-grade tobacco were grown. Seven weirs with a combined capacity of 2,650 acre feet have been completed on a number of streams to store water for irrigation.

During 1952, a report on the utilization of waters of the Barron and Walsh Rivers was prepared and the establishment of an irrigation undertaking approved by the Queensland Government. The projected undertaking provides for construction of a major storage at Tinaroo Falls on the Barron River to store 330,000 acre feet, and construction of irrigation works to serve 78,000 acres commanded by this storage. Construction of Tinaroo Falls Dam has been completed and work is progressing on the construction of irrigation works. Further development by construction of a second storage at Nullinga on the Walsh River has been deferred for the present. Tobacco will be the basic crop while peanuts, vegetables, maize, cotton and stock fattening also appear suitable.

(vi) *Border Rivers Project.* The development of the rivers constituting portion of the border between Queensland and New South Wales is under the authority of the Dumaresq-Barwon Border Rivers Commission on which each State is represented. For information on the project see page 259.

(vii) *Balonne River.* The St. George Irrigation Area has been constituted and construction of works to serve some 11,000 acres has been completed. Water supply for the area is obtained by pumping from the combined weir and road bridge on the Balonne River at St. George.

(viii) *Warrill Valley Project.* It is anticipated that work on Moogerah Dam on Reynolds Creek (a tributary of Warrill Creek) will be completed in 1960-61. This dam is of double curvature thin arch construction 105 feet high to spillway crest level and will serve some 11,000 acres of the Valley by private diversion.

(ix) *Mary Valley Project.* Work has commenced on the establishment of township accommodation and facilities at Borumba Dam site. This is a rock-fill structure with an upstream impermeable concrete membrane 144 feet high above stream bed. In its initial stage, storage capacity will be 34,500 acre feet with provision for later increase to 80,000 acre feet. In its first stage, in addition to a town water supply for Gympie, some 18,000 acres could be irrigated also by private diversion.

6. *Channel Country.*—Extensive investigations have been made of the Channel Country fed by inland rivers in the south-western corner of the State. This country is intersected by shallow and irregular flood channels through which huge volumes of flood waters pass in favourable seasons. Consequent on the flooding, a heavy growth of natural pastures is produced on the flooded lands, providing feed in quantities far in excess of that required for the normal stock population of the area. If flooding could be made more reliable by means of storages to create artificial floods, the pastoral resources of the area would be enormous. However, inquiries directed on these lines have revealed that little can be done to increase or stabilize the turn-off of fat cattle by artificial storage.

At 30th June, 1952, 41 watering facilities, at an estimated cost of £277,000, had been proposed under a Commonwealth-State agreement for stock routes through, and in the approaches to, the Channel Country. By 30th June, 1960, 32 had been completed, while three sub-artesian bores and one excavated tank were under construction.

7. *Hydro-electricity.*—An outline of Hydro-electricity Schemes operating in Queensland is given in the previous chapter (*see* p. 238).

§ 5. South Australia.

1. *General.*—(i) *Rainfall.* Brief particulars of the climatic conditions in South Australia are given on page 1129 of Official Year Book No. 37. (*See also* Chapter II.—Physiography, page 45 of this Year Book.)

(ii) *Administration.* Water supplies, other than irrigation works, are under the control of the Engineering and Water Supply Department, which administers the Waterworks Act governing the supply of water through mains in water districts for townships and farm lands. The Water Conservation Act provides for the construction of storages in non-reticulated areas and authorizes the Minister to “divert and impound the water from any streams or springs or alter their courses, and take water therefrom, or any other waters as may be found in, under, or on, any land entered upon for the purpose of supplying water to the inhabitants of any water district”.

(iii) *Methods of Catchment and Conservation.* Early in the history of the State the rights to all running streams, springs and “soaks” were vested in the Crown. The Water Conservation Act was passed in 1886 and, up to 30th June, 1960, more than 550 dams, tanks and “rainsheds” had been built or acquired by the State, in addition to 460 wells and 340 bores, at a total cost of £1,771,709. The “rainsheds” are timber frameworks roofed with galvanized iron to catch precipitation which is delivered to storage tanks and is available for surrounding settlers and travellers. Rainshed catchments vary from a few hundred square feet to four acres, discharging into tanks ranging from 2,000 to 500,000 gallons. Over most of the State, extraordinary precautions are taken to counteract evaporation and pipelines in preference to open channels and covered storages are used for this purpose. Meters are attached to practically all services to check usage by individual consumers.

2. *Irrigation.*—In South Australia, irrigation is almost exclusively confined to the Murray Valley. Except for that held in various lock pools, no water from the Murray is stored in South Australia. Water is either pumped on to the land or gravitated from the river. The upper Murray of South Australia and the Mildura area of Victoria formed the cradle of Australian irrigation. South Australian irrigation commenced with an agreement between the Government and the Chaffey brothers in 1887 whereby an area of land at Renmark was made available for the establishment of certain irrigation works. Including land allotted for War Service Land Settlement purposes, the Department of Lands administers in the Murray Valley an area of 32,791 acres of irrigable high land together with 9,449 acres of reclaimed swamp and 167,110 acres of non-irrigable land in the irrigation areas and 29,779 acres of land temporarily leased and reserved for commonage or other purposes, amounting in all to 239,129 acres. In addition, the Renmark Irrigation Trust controls 20,557 acres, of which 9,550 are irrigated. Water used for irrigation purposes in 1959–60 in the high land irrigation areas controlled by the Department of Lands, excluding War Service Land Settlement areas in course of development, was approximately 100,000 acre feet and, in addition, approximately 63,000 acre feet were applied to the reclaimed areas. In the Renmark area, approximately 35,000 acre feet of water were used for irrigation in 1959–60. The production of the upper Murray areas is almost exclusively fruit and vines. Principal crops are sultanas, currants, lemons, apricots, peaches, nectarines, pears and figs (mainly for dried fruit), wine grapes, and citrus fruits. Before irrigation, these semi-arid lands were of little productive value.

Renmark Irrigation Trust is administered by a local board of management consisting of seven members. This area differs from other South Australian irrigation areas in that the land is freehold instead of leasehold and is self-contained and self-controlled. Every settler is entitled to vote for the election of Trust members. The Trust maintains 100 miles of channel for reticulation to 9,550 acres.

The following tables show the acreage devoted to various crops in the government-controlled and Renmark Irrigation Trust areas on the upper Murray, and in the government-controlled reclaimed swamp districts near the mouth of the Murray, which are devoted to dairying.

AREA OF LAND UNDER IRRIGATED CULTURE, 1959-60.

IRRIGATION AREAS ADMINISTERED BY THE DEPARTMENT OF LANDS AND
THE RENMARK IRRIGATION TRUST.

(Acres.)

Area.	Vine Fruits.	Tree Fruits.	Citrus Fruits.	Sown Pastures.	Total.
<i>Areas Administered by the Department of Lands.</i>					
<i>Orchard Land—</i>					
Berri	5,043	1,187	1,321	..	7,551
Cadell	585	167	126	..	878
Waikerie	1,760	618	1,292	..	3,670
Cobdogla	3,846	208	245	..	4,299
Moorook	294	156	191	..	641
Kingston	211	93	250	..	554
Mypolonga .. .. .	..	308	449	..	757
Chaffey—Rat Ral Division ..	778	192	11	..	981
<i>Total</i>	<i>12,517</i>	<i>2,929</i>	<i>3,885</i>	<i>..</i>	<i>19,331</i>
<i>War Service Land Settlement—</i>					
Cooltong Division	356	256	489	..	1,101
Loxton area	2,983	1,031	2,183	..	6,197
Loveday Division	247	39	18	..	304
<i>Total</i>	<i>3,586</i>	<i>1,326</i>	<i>2,690</i>	<i>..</i>	<i>7,602</i>
<i>Reclaimed Swamp Land—</i>					
Monteith .. .. .	..	..	..	960	960
Mypolonga .. .. .	..	..	..	1,322	1,322
Wall .. .. .	..	..	..	487	487
Burdett .. .. .	..	..	..	109	109
Mobilong .. .. .	..	..	..	429	429
Long Flat .. .. .	..	..	..	339	339
Neeta .. .. .	..	..	..	561	561
Pompoota .. .. .	..	..	..	422	422
Cowirra .. .. .	..	..	..	570	570
Jervois .. .. .	..	..	..	3,602	3,602
<i>Total</i>	<i>..</i>	<i>..</i>	<i>..</i>	<i>8,801</i>	<i>8,801</i>
<i>Renmark Irrigation Trust.</i>					
<i>Renmark Irrigation Trust ..</i>	<i>7,330</i>	<i>950</i>	<i>1,270</i>	<i>..</i>	<i>9,550</i>

3. *Water Supply Schemes.*—(i) *Adelaide Metropolitan Water Supply.* Adelaide derives its water from five reservoirs in the nearby Mount Lofty Ranges, and by means of pumping stations and a pipeline from the River Murray at Mannum. The reservoirs have a storage capacity of 51,497 acre feet and the pipeline a capacity of 53,627 acre feet a year. The consumption for the year 1959–60 was 82,096 acre feet, equivalent to a consumption of 107 imperial gallons per head per day. The capital cost to 30th June, 1960, was £33,397,908.

(ii) *Country Reticulated Supplies.* Areas extending to a distance of 90 miles north of Adelaide are supplied from the Warren, Barossa, and South Para Reservoirs (50,350 acre feet) in the Barossa Ranges. To supplement these storages, a branch main from the Mannum-Adelaide Pipeline feeds into Warren Reservoir.

Agricultural towns and areas further north are supplied from Beetaloo, Bundaleer and Baroota Reservoirs, with connexions to the Warren system and the Morgan-Whyalla Pipeline. The 223-mile pipeline from Morgan on the River Murray to Whyalla was designed to deliver annually 4,400 acre feet to Whyalla and 3,300 acre feet to the northern districts. Branch pipelines have been constructed to Jamestown, Caltowie, Peterborough, Clare and Woomera. Yorke Peninsula has now been reticulated. A pipeline has been laid from the Bundaleer Reservoir, and the reticulation system extended south to Edithburgh. Work is in progress on the construction of the Myponga Reservoir. A concrete arch dam is being built on the Myponga River, to impound 22,000 acre feet of water. This storage will be used to supply towns and country lands south to Normanville and as an additional source of supply for the Adelaide Metropolitan area.

Water conservation and distribution works in country districts have cost £33,453,267 (exclusive of river control and irrigation works on the River Murray) and contain 6,723 miles of water mains. The capacity of country storages is 71,644 acre feet, serving a population of approximately 316,000.

4. *Underground Water.*—The occupied portion of South Australia is, on the whole, well endowed with underground water and the extent of the several artesian basins is reasonably well known. There are also considerable areas, notably in the south-east of the State, in which ground water occurs. Quality varies widely, but a great deal is at least useful for watering stock and this is the major use to which it is put.

The deepest portion of the Great Artesian Basin (in the north-east) is not extensively developed because development costs are high in proportion to the carrying capacity of the arid land. However, deep boreholes have been drilled by the government to provide watering places along stock routes, and pastoralists rely largely on supplies from non-pressure aquifers at shallower depths. Marree township is supplied from this source, its deepest bore being 575 feet.

The use of the waters of the Murray Basin is essential to settlement in the Murray Mallee country and in the south-east of the State, especially for farms and township supplies to Mount Gambier, Naracoorte, Bordertown, Pinnaroo, Penola, Lamerloo, Coonalpyn, Nangwarry, Mount Burr, Kingston (S.E.), Parilla and Karoonda. The deepest bore in this Basin is 1,805 feet. Towns elsewhere which are supplied from bores include Mount Barker, Port Lincoln, Peterborough, Warooka and Willunga.

Pastoralists, farmers, market gardeners and others have been assisted with expert advice on drilling, and the Government maintains about 30 drills. The whole of the Murray River Basin has been examined critically to ascertain the extent of land which could be used for lucerne and considerable tracts of previously undeveloped country in the Upper South-east, Kangaroo Island and Yorke Peninsula have been found to have usable water and are now being opened up.

Groundwater resources surveys are undertaken continually by departmental geologists, the results being published in various bulletins and reports issued from time to time. The *Groundwater Handbook* published in 1959 by the Department of Mines provides a comprehensive detailed review of the State's ground water resources.

5. *Farm Water Schemes.*—While the Department of Mines and the Engineering and Water Supply Department give assistance to individual farmers in the provision of supplies from underground sources, a great part of the farming areas obtains water supply under pressure from the extensive distribution systems connected to various reservoirs or the Murray River.

6. *South-Eastern Drainage.*—Nature has played an ironic prank in the south-east of South Australia where it has been necessary to construct costly drainage schemes to dispose of surplus water. The area comprises a series of valleys or flats separated by low ranges parallel to the coastline which prevent natural drainage. The highest "range" is approximately 50 feet above the adjacent flat and the most easterly flat, some 50 miles from the coast, is 200 feet above sea level. The ranges are generally of poor soil or stony but the flats are fertile.

The Millicent Drainage System was completed in 1885, when 100,000 acres were reclaimed by 225 miles of drains at a cost of £150,000, which was included in the land allotment prices.

The South-Eastern Drainage Area System, which is controlled by the South-Eastern Drainage Board, comprises drains constructed by the Government at national cost, plus those undertaken by the Government in co-operation with the landholders.

The area is bounded on the east by the State Boundary, and on the west by the sea coast. It extends from about 55 miles north of Kingston southerly to near Millicent and Kalangadoo. Up to 1948, about 430 miles of drains had been provided at a cost of £720,876. These were of a developmental nature intended more to promote the rapid removal of floodwaters than to provide a complete system of drainage. Since 1948, the complete drainage of the Biscuit, Reedy Creek and Avenue Flats in the Western Division has been in progress. The southern section of 260,000 acres, involving an excavation of 8,100,000 cubic yards has been completed. Work is in progress on the Northern Section of 140,000 acres where 9 miles of the main outlet drain have been completed. In addition, work has commenced on the construction of the main outlet drain for the Eastern Division where an area of 727,000 acres of land will benefit by drainage.

The capital cost of drainage in the South-Eastern Drainage Area System to 30th June, 1960, was £5,010,479, and the length of drains constructed was 700 miles.

§ 6. Western Australia.

1. *General.*—(i) *Rainfall.* Brief particulars of the climatic conditions in Western Australia are given on page 1133 of Official Year Book No. 37. (*See also* Chapter II.—*Physiography*, page 45 of this Year Book.)

(ii) *Administration.* Natural water rights in the State, with few exceptions, are vested in the Crown. Irrigation districts are administered by the Minister for Water Supply, Sewerage and Drainage under the Rights in Water and Irrigation Act 1914–1951, and he is advised by an Irrigation Commission representing the local irrigationists and governmental technical and financial branches. Water supplies in country areas in Western Australia coming under the provisions of the Water Boards Act 1904–1954, and the Country Areas Water Supply Act 1947–1957 are controlled either by the local authority or by the Water Supply, Sewerage and Drainage Department. Those controlled by the Department (except for some local water supplies to country towns still under the provisions of the Water Boards Act) form the Country Areas Water Supply, consisting of the Goldfields and Agricultural Water Supply, the Great Southern Towns Water Supply and local water supplies to country towns and districts. The Department also controls individual water supplies serving isolated mines, stock routes, and agricultural areas.

2. *Irrigation.*—(i) *South-West.* The main irrigation areas are situated along the South-Western Railway between the towns of Waroona (70 miles from Perth) and Dardanup (116 miles from Perth).

The Water Supply, Sewerage and Drainage Department controls three irrigation districts—Waroona, Harvey and Collie River—the total area irrigated in these districts during 1959–60 being 24,772 acres and the total water used approximately 70,000 acre feet. The total of acre waterings (that is, the number of acres watered multiplied by the average number of waterings) was 121,869. Investigations are being carried out with a view to irrigating a further 30,000 acres south of the Collie River Irrigation District.

The Waroona Irrigation District (3,414 rated acres) is supplied from Drakes Brook Dam (1,855 acre feet capacity) and Samson Brook Dam (7,239 acre feet), the Harvey Irrigation District (14,356 rated acres) from the Harvey Weir (8,372 acre feet) and Stirling Dam (46,191 acre feet), and the Collie River Irrigation District (9,156 rated acres) from the Wellington Dam (29,440 acre feet).

The following table, which shows acre waterings supplied to crops in the irrigation districts of Harvey, Waroona and Collic River during the seasons 1955-56 to 1959-60 illustrate the general growth of these irrigation schemes. The reduction in the number of acre waterings in 1959-60 was due to a general shortage of water.

IRRIGATION, WESTERN AUSTRALIA: ACRE WATERINGS(a).

Year.	Pasture.	Fodder.	Potatoes.	Other vege- tables.	Orchards and Vineyards.	Flax, Broom Millet, and Miscel- laneous.	All Crops.
1955-56	108,468	3,599	1,834	3,452	946	127	118,426
1956-57	129,502	3,757	3,995	3,317	1,024	119	141,714
1957-58	133,634	5,384	3,299	2,947	972	..	146,236
1958-59	136,940	6,324	1,858	2,495	1,014	1	148,632
1959-60	112,193	4,774	1,351	1,978	729	844	121,869

(a) Number of acres watered multiplied by average number of waterings.

(ii) *General.* In 1959-60, the total area irrigated in Western Australia was 45,889 acres made up of vegetables (8,447 acres), fruit (7,642 acres), vineyards (705 acres), pastures (25,427 acres) and other crops (3,668 acres).

An area of approximately 650 acres of Gascoyne River flats adjacent to Carnarvon is under irrigated cultivation. The principal crops are bananas and beans but others such as tomatoes are also grown. For this agriculture, some 130 acre feet of water a week are drawn from river underflow.

On the Liveringa flood plain, 65 miles south east of Derby, commercial production of rice has been achieved following successful experimental work. Irrigation water from the Fitzroy River is diverted through Uralla Creek, an anabranch, for 25 miles to the rice growing area where a natural storage of approximately 1,200 acre feet exists. During periods of low flow in the Fitzroy River, the supply of water is augmented by pumping. Further storage with a capacity of 4,500 acre feet has been provided by the construction of a dam on Uralla Creek 18 miles from the Fitzroy River.

The Ord River in the Kimberley Division of Western Australia traverses a tropical area served with monsoonal rains of irregular incidence and quantity, varying from 20 inches in the south to 30 inches in the north. The hottest months (December to March) are also the months of highest rainfall. Communications and population are sparse. The Western Australian Government is considering a proposal to build a dam to conserve in excess of 3,000,000 acre feet of water, equipped with a hydro-electric plant, which might supply water for an area of some 200,000 acres agriculturally and topographically suitable for irrigation. Investigations show that the climate and soil conditions are suitable for sugar cane, rice, cotton, safflower and various oil seeds. The economic production of these and other crops, as well as the possible use of such irrigation areas for fattening cattle, is being examined at the Kimberley Research Station on the Ord River. Construction of a diversion dam at Bandicoot Bar, now in progress some 30 miles downstream from the main dam site, will enable a number of pilot irrigation farms to be established.

3. *Water Supply Schemes.*—(i) *Metropolitan.* Particulars relating to the Metropolitan Water Supply are given in § 5 of Chapter XIX., Local Government.

(ii) *Goldfields and Agricultural Water Supply.* Western Australia has one of Australia's most spectacular water supply schemes, and a brief account of its development will be found on page 1134 of Official Year Book No. 37. Mundaring Weir on the Helena River, 26 miles from Perth, is the source of water supplied to the Eastern Goldfields and has a capacity of 62,435 acre feet and a catchment of 569 square miles. The water passes through 346 miles of main pipeline, mostly steel, and 30 inches in diameter, equipped with eight pumping stations.

Maximum pumping capacity from No. 1 Pumping Station at Mundaring Weir is nominally 15.9 million gallons a day. The total capacity of all receiving, regulating, standby and service tanks along the main pipeline is 154 million gallons which includes three standby reservoirs at Kalgoorlie having a combined capacity of 60 million gallons.

Hundreds of miles of branch pipelines have been laid to mining areas, agricultural areas and country towns, a notable one being the Norseman extension of 101 miles. The system serves some 71 towns and water is reticulated to 3,000,000 acres of mixed farming lands. The total length of pipelines is 3,138 miles and the number of services is 22,381. The total quantity of water pumped from Mundaring Weir in 1959–60 was 2,924 million gallons. The total cost of the scheme to the end of 1959–60 was £15,742,252, of which the Commonwealth Government contributed £2,801,912 under the terms of the Comprehensive Water Supply Scheme.

District water supply schemes established for the purpose of supplying certain country towns and mixed farming lands have been absorbed into the Goldfields and Agricultural Water Supply. For further particulars see Official Year Book No. 37, page 1135.

(iii) *Comprehensive Water Supply Scheme.* A comprehensive water supply scheme to supplement water supplies to the goldfields, agricultural areas, and country towns, authorized in 1947 as a joint work between the Commonwealth and State and estimated to cost £10,000,000 is under construction in two main parts. The northern section is an enlargement and extension of the Goldfields and Agricultural Water Supply. The southern section is the Great Southern Towns Water Supply. Linked with Wellington Dam (initially an irrigation work on the Collie River) by 80 miles of 30-inch diameter pipe through three pumping stations to Narrogin, it now supplements the existing water supplies to country towns along the Great Southern Railway, north to Brookton and south to Katanning. The raising of the impounding wall of Wellington Dam to increase its storage to about 150,100 acre feet is in progress. Expenditure on the Scheme to 30th June, 1960, amounted to £8,877,278.

(iv) *Local Water Supplies.* Local schemes other than the above comprise those in the remaining agricultural and mining areas, including the North-West and Kimberley Divisions. Seventy-one separate reticulated water supplies serve country towns and districts. Of these, 66 are controlled by the Water Supply, Sewerage and Drainage Department and the remainder by local authorities.

(v) *Commonwealth and State Government Railways.* Railways of the Commonwealth and State Governments make independent provision for supplies of water for their own purposes, although considerable additional quantities are consumed by the Railways from other sources, e.g., Public Works and Metropolitan Water Supply Departments.

(vi) *Catchments.* The water supplies to these country schemes come from stream flow, dams, tanks, wells and bores.

A total of 71 rated stream gauging stations is operating in the South-West and Kimberley Divisions. Three types of catchment peculiar to this State developed in connexion with local water supplies and deserving special mention are:—rock catchments, which consist mainly of clear granite out-cropping rock, from which the overall run-off from rain amounts to approximately 40 per cent.; bituminous catchments, which are areas which have been sealed with emulsified bitumen—some hundreds of acres have been so treated and yield a run-off of approximately 80 per cent. of the rainfall; and roaded catchments, where selected areas of a catchment are cleared, graded and formed into roads to assist in obtaining additional rainfall run-off.

4. *Underground Water.*—Individual farmers, orchardists, market gardeners and others pump groundwater from wells and bores, using windmills, engines or electric power. Water is also obtained from artesian and sub-artesian bores. The Public Works Department hires out to local authorities boring plants which are then hired out to farmers to assist their boring operations. In addition, the department operates its own boring plants and contracts with private firms in connexion with water supply works.

Considerable advances in the knowledge of aquifers and quality of water in the main sedimentary basins have been made as a result of the extensive geological surveys in connexion with oil exploration during the past ten years and most of these results are now in the course of publication. In view of the importance of finding water for towns and farms in low rainfall areas outside the sedimentary basins, the Geological Survey of Western Australia and the Commonwealth Bureau of Mineral Resources have combined to apply geophysical prospecting to the search for water in weathered granites in the south-western part of the State.

A census of underground water occurrences in the South-West Divisions of Western Australia was commenced two years ago, is currently in progress, and will be extended to all parts of the State in due course.

§ 7. Tasmania.

1. General.—(i) *Rainfall.* Brief particulars of the rainfall pattern in Tasmania are given on page 1136 of Official Year Book No. 37. (See also Chapter II.—Physiography, page 45 of this Year Book.)

(ii) *Main Purposes of Conservation and Utilization.* Owing to the generally more adequate rainfall in Tasmania, scarcity of water is not such a problem as it is in most mainland areas, though not all streams are by any means permanently flowing. The only large scale conservation by reservoirs is for hydro-electric power generation, but there are some moderate sized dams built by mining interests, and by municipal authorities for town water supplies.

Until a few years ago, irrigated areas were negligible except for long-established hop fields, but there is a rapidly extending use of spray irrigation on orchards and pastures, and to some extent on potatoes and beans. Up to the present there has been almost complete dependence on natural stream flows, but the need for some regulating storages is now apparent. A few farmers are constructing storages of their own, and the extension of this practice is foreseen as the logical solution in most areas, as valleys are narrow and steep sided. Single large reservoirs cannot command large economical areas of suitable head, as nearly every valley is separated from others by pronounced hills, prohibiting the construction of cross-country channels.

Underground water is generally of poor quality through mineralization, but a small quantity, exploited to a minor degree by bores and pumps, exists over an area in the Midlands, and on King Island.

(iii) *Administration.* Municipal water supply is primarily the responsibility of local Councils, subject to approval of plans and finance by the Rivers and Water Supply Commission. This body came into existence in September, 1958, taking over all functions of the old Water, Sewerage and Drainage Board as well as other duties and powers.

With regard to water, the Commission does not own the waters of streams and lakes, but is empowered to take them, or issue licences, subject to pre-existing statute and common law rights. These include water reserved for specific industries, municipal requirements, and ordinary riparian rights. The Commission is also concerned with Drainage Trusts' operations, river improvement, including repairs after flood damage, and stream gauging.

2. *Hydro-electricity.**—Tasmania depends entirely on water for power development. The Hydro-Electric Commission, the authority controlling the generation of electricity in Tasmania, conducts a continuous survey of the water power resources of the State assisted by modern methods such as aerial photography and geophysical exploration.

Much of the water potential is located on the Central Plateau with an area of about 1,500 square miles at an altitude of from 2,000 to 4,000 feet and subject to rainfall of from 30 inches a year in the east to 80 inches on the western perimeter. On the plateau are a large number of lakes which provide the means for storage at low cost. These include Great Lake with an area of 58 square miles, Lake St. Clair and Lake Echo each more than 12 square miles, and others of smaller area.

The Derwent River and its tributaries which flow south-easterly carry off by far the greater part of the water which falls on the plateau and these rivers are therefore the most abundant source of power. They have been the cheapest to develop to date and most of the existing generating stations are located on them.

The three main rivers running westerly from the plateau—the Arthur, Pieman and Gordon—have only a small portion of their catchment areas at high level, but they run through regions of high rainfall and their power potentials are considerable. However, because of inaccessibility and climate, development of these rivers may be rather expensive and has been deferred so far in favour of more convenient schemes.

* See also Chapter VII.—Electric Power Generation and Distribution, p. 245.

Rivers draining from the plateau towards the north and north-west coast, including the Emu, Forth and Mersey, have small catchments at high levels and no natural storages.

Two other important water power sources, independent of the Central Plateau, are the South Esk River in the north and the Huon River in the south. A power station at Trevallyn, near Launceston, utilizes water from the South Esk. The Huon has a large low-level catchment in the high-rainfall area near the west coast. Storage could be provided on this river at a reasonable cost and, because of its proximity to Hobart, a future power station would have considerable value for peak load development.

3. Industrial.—Three principal industrial schemes have been installed privately. Australian Newsprint Mills Ltd. pump approximately eight million gallons a day from the Derwent River at Lawitta for the Boyer Mills. Associated Pulp and Paper Mills Ltd. pump several million gallons a day from the Emu River at Burnie, and Titan Products Pty. Ltd. reticulate water from Chasm Creek to their factory at Heybridge. In addition, the State has constructed a regional water scheme to serve the Australian Aluminium Production Commission's plant at Bell Bay on the River Tamar and to supply several municipalities with bulk water for domestic and industrial purposes.

A second regional water scheme draws water from the River Derwent at Lawitta to provide domestic and industrial supplies in five southern municipalities. Potential sources capable of greater development without storage exist on the Derwent, South Esk, Huon, Lake, Mersey and Forth Rivers. There is also a great reserve of untapped permanent streams in the western half of the State which is largely unsettled. Diversion to the eastern side of the watersheds is not regarded as practicable.

4. Irrigation.—There are no State irrigation projects at present, but the Rivers and Water Supply Commission is investigating the possibility of establishing a storage for the Coal Valley. Preliminary investigations have also been made in the Jordan Valley. The Water Act 1957 provides for irrigation works to be undertaken by municipalities and by Trusts constituted for the purpose, but no such works have been undertaken to date. All systems operating are privately owned, and with one exception (at Bushy Park) are single-farm units. At Bushy Park, a small system serves a group of properties. The larger proportion of the area under irrigation is watered by gravitational systems and the remainder comprises areas devoted to vegetables and served by municipal water supplies or private spray systems. Irrigation in Tasmania was applied in 1959–60 to 18,108 acres devoted to: hops (1,311 acres); fruit (2,350 acres); pastures (11,339 acres); green fodder, etc. (1,286 acres); and other crops (1,822 acres).

§ 8. Northern Territory.

1. Climate and Topography.—Some particulars of the climate and main topographical features of the Northern Territory are given on page 1138 of Official Year Book No. 37 and in this issue information on climatic conditions will be found in Chapter II.—Physiography, and a brief outline of contour and physical characteristics in Chapter V.—The Territories of Australia.

2. Administration.—Under the Control of Waters Ordinance 1938-1959 of the Northern Territory, natural waters are vested in the Crown. Where a watercourse or lake forms a boundary of any land alienated by the Crown, the beds and banks are deemed to remain the property of the Crown (except in special cases) and diversion of water is prohibited except under prescribed conditions. There is a Water Resources Branch in the Northern Territory Administration under the control of a Director. The functions of the Branch include systematic stream gauging, collection of data on surface and underground water supplies, planning of water use for irrigation and town water supplies, flood prevention and control.

Another function of the Branch, which is increasing in importance as it builds up a body of technical data and information about the Territory's water resources, is the dissemination of this knowledge by the provision of advice and assistance to the public and professional drillers.

3. **Underground Water.**—The marked seasonal rainfall over the whole of the Northern Territory is one of the basic factors affecting the pastoral industry which provides the bulk of the Territory's income. The inadequacy of surface water during the dry season underlines the importance of underground water supplies in the Territory where most of the cattle population is dependent on underground supplies for three to five months each year.

Rainfall is one of the factors controlling cattle population, but geological features, controlling both soils and the storage of underground water, are equally important. In the northern-most portion of the Territory, which receives from 25 to 60 inches of seasonal rainfall a year, surface water supplies are, in general, adequate for the pastoral industry. Despite this, however, this area has a comparatively low carrying capacity for cattle and the pastoral industry is concentrated more in inland areas where feed retains more nutritive value in the winter, despite dry conditions.

South from this well-watered northern-most portion, the Territory becomes progressively drier, with an annual average rainfall of only five inches at the margins of the Simpson Desert in the south-east corner. In the lower rainfall areas, the search for potable underground water becomes exacting, but in the Ord-Victoria Region and the Barkly Tablelands the best pastures are generally in areas where sub-surface conditions are suitable for the storage of underground water.

In the Ord-Victoria Region, the best grass lands overlie volcanic rocks and extend over some 10,000 square miles. Ground water is obtained in shallow bores averaging 70 to 80 feet in depth and producing small supplies which range up to 1,500 gallons an hour. For the most part, water is stored in joints, faults or cracks in the rocks although in places sub-artesian conditions pertain and, on the whole, selection of bore sites is difficult. There are also small sedimentary basins in the region, some of which yield sub-artesian, and in places, artesian water and provide areas of good pastures.

The Barkly Tablelands, which extend into Western Queensland, overlie flat-lying limestone, sandstone and shale of the Barkly Basin. In most places, underground water is under pressure (sub-artesian) but no flowing bores are known. Sandstones and beds of limestone with fractures and solution cavities provide a number of aquifers within the Basin. The hydraulic surface (to which pressure water will rise in bores) ranges between 500 and 600 feet above sea level and adequate supplies for the watering of stock are available at depths ranging from 150 to 400 feet from the surface. The water from over 90 per cent. of the bores is suitable for stock and over 50 per cent. of it is suitable for human consumption. Investigations by the Commonwealth Bureau of Mineral Resources indicate that underground water supplies will be more than sufficient for the future development of the pastoral industry on the Tablelands.

In the Alice Springs district, valuable pastures occur on a great variety of rock types and from some of these very little underground water is available. Many shallow bores obtain water from alluvium near stream channels. There are also many successful bore in porous sands and limestone in Mesozoic and Cainozoic sedimentary basins and in some Upper Proterozoic and Palaeozoic limestones and sandstones. Boring in the metamorphic rocks and granite of the basement has, on the whole, met with little success. In many areas, the underground water is of poor quality.

Considerable research has been undertaken in the last four years into increasing the Alice Springs water supply from alluvial basins and provision of a water supply for the mining town of Tennant Creek from the Cabbage Gum Basin, a small basin in deeply weathered Precambrian rocks, 15 miles south of the town.

Up to 30th June, 1960, 1,954 bores and wells had been registered in the Territory. Of these, 1,164 were on pastoral properties, 85 served town and domestic water supplies and 18 were located on mining fields. The number of registered stock route bores established by the Government is 233.

4. **Irrigation.**—There are no large-scale water conservation projects in the Territory with the exception of the Manton Dam (12,700 acre feet), which serves Darwin with a reticulated supply. Some water is drawn from the rising main between the Manton Dam and Darwin for irrigation purposes, but the trend is for properties in this area to develop their own water supplies, either by boring or by pumping from watercourses or lakes. Investigations for a further dam site to augment Darwin's water supply and to provide reticulated water to properties without natural waters are expected in the near future. Hydrological investigations are being carried out by the Administration to determine the

supply of water and the best methods of control and use in the potential rice-growing areas of the Territory. Ninety-nine gauging stations were in operation in the Territory at 30th June, 1960, under the control of the Administration's Water Resources Board. Of these, 49 are equipped with automatic water level recorders. The remaining 50 are staff gauges. Seventeen gauging stations are for recording changes in water level only, one of these being the Darwin Harbour Tide gauge, which is operated on behalf of the Harbour and Marine Branch. The other sixteen gauges of this kind are scattered over the north sub-coastal plains and measure the depth of flooding over the plains. The information is required for future agricultural production in these areas, notably rice culture. Agricultural activity in the Territory is not extensive, being confined to the Darwin, Adelaide River, Coomalie Creek, Daly River, Katherine River and Alice Springs areas with only small acreages being utilized.

The Katherine River appears to offer irrigation potentialities on the level soil below the township. Approximately 14 properties in and around Katherine are at present drawing water from the Katherine River for irrigation purposes, vegetables and pastures being the usual crops grown. The Katherine River passes through a gorge upstream of the town under conditions which appear suitable for dam construction. The Administration and the Commonwealth Scientific and Industrial Research Organization are investigating the potentialities of the Katherine area for agricultural production.

§ 9. Papua and New Guinea.

1. **Rainfall.**—Rainfall in Papua and New Guinea varies considerably from approximately 250 inches near Lindenhafen (New Britain) and 231 inches at Kikori (Papua) to about 70 inches near Marienburg (New Guinea) and 40 inches at Port Moresby (Papua).

2. **General.**—For a general description of these territories *see* Chapter V.—The Territories of Australia, page 133, of this Year Book. Irrigation has not been developed on any organized basis owing to the availability of high rainfall and the nature of agricultural development.

The Territory of Papua and New Guinea is well served with large rivers deriving their water from heavy tropical rains and high mountains which rise to over 14,000 feet. However, complete data regarding water resources are not available.

The largest rivers in the Territory include the Fly (a description of which is given in Chapter XXVI. of Year Book No. 40), the Sepik (700 miles), the Ramu (450 miles), the Purari (300 miles) and the Markham (110 miles).

The main water conservation interest in New Guinea at present is the hydro-electric potential which is extensive. An outline of schemes at present in operation is given in the previous chapter.

CHAPTER IX. POPULATION.

NOTE.—At the time of preparation of this chapter the latest census results available were for the Census of 30th June, 1954. Population estimates shown in this chapter for the intercensal period 1947 to 1954 are revised figures which have been adjusted in accordance with those results. Summarized results of the Census taken at 30th June, 1961, will be included in the Appendix to this Year Book.

In general, the remaining statistics in this chapter cover the year 1960. More detailed figures will be found in the annual bulletin, *Demography*.

Statistics of the population of the principal countries and continental groupings of the world are set out in tables in §15 of this chapter (*see pp. 331-2*).

§ 1. Population Statistics.

Population statistics for Australia or the component States and Territories at specific dates are of two types.

- (i) *Those ascertained by census enumeration.* These results attain a very high degree of accuracy and may generally be accepted without reservation.
- (ii) *Estimates derived by the application of vital and migration statistics to census data.* In general, three estimates are made for any specific date.
 - (a) Original estimates for dates subsequent to a census made before another census is taken. These estimates represent the population ascertained at the Census, plus natural increase and recorded net migration since the Census. As complete records of interstate migration are not available, the estimated State or Territory populations so derived are approximate, and are subject to revision when the actual population of each State or Territory is ascertained at the next Census. For some States such revisions were substantial after the Census of 1954.
 - (b) Two-stage revision of the original estimates for each newly completed intercensal period to adjust for the difference between the new census result and the comparable estimate. This is to bring intercensal estimates into line with the two census populations and thus effect adjustment for unrecorded movement of population in the intercensal period. The first revision is reconciled with preliminary census results and the second revision with final census results.

Final revised figures become the permanent population estimates. For purposes requiring a mean population for any twelve-month period, such mean is calculated as described in § 4. As populations at specific dates are used in these calculations, consequential revisions are made in mean populations when the estimates for specific dates are revised as described above.

In accordance with this policy, all Australian population statistics shown in this issue of the Official Year Book for dates up to 30th June, 1954, and all mean populations for calendar years up to 1953 and financial years up to 1953-54 are final. Population statistics for dates or years subsequent to these are subject to revision when another census is taken.

Since the establishment of the Commonwealth Bureau of Census and Statistics, the populations of the States and Territories have been estimated in a comparable manner and attention has been given to the improvement of the basic data from which the estimates are compiled. The principal source of error in early estimates lay in the migration records, both overseas and interstate, and efforts were directed towards their improvement. The 1911 Census disclosed an error in the precensal estimates equivalent to proportions of 14.5 per cent. and 10.0 per cent., respectively, of recorded male and female overseas departures from Australia. These proportions were used as adjusting factors to recorded overseas departures during the intercensal period 1911-21. These adjusting factors were reduced after the 1921 Census to 1 per cent. for males and 4.5 per cent. for females and were discontinued altogether after the 1933 Census. From the results of the 1954 Census, it appears that the accuracy of the records of overseas migration is such that, in future, little adjustment to recorded figures will be necessary for Australia as a whole.

It is improbable that the same degree of accuracy as has been attained in the record of oversea migration can be reached in the case of interstate movements. Records are made of interstate passengers by sea, rail and air, but it is impracticable, with occasional important exceptions, to record the movements by road.

§ 2. The Census.

1. **Census-taking.**—Although “musters” of the population were carried out at least annually from 1788 to 1825, the first regular census in Australia was not taken until 1828, when a count of the population of the Colony of New South Wales was made. Subsequent censuses were taken sporadically in the various colonies until 1881, when a census was taken on the same date throughout Australia.

In 1891 and 1901, census-taking was still in the hands of the Government Statisticians of the States, but, in 1911, under the provisions of the Commonwealth Census and Statistics Act, which provides for the enumeration to be made from one centre instead of by each State as formerly, the Commonwealth Statistician undertook the first census of the Commonwealth of Australia. The second was taken in 1921, the third in 1933, the fourth in 1947, the fifth in 1954, and the sixth in 1961.

2. **Population recorded at Censuses.**—State and Territorial populations recorded at the Australia-wide censuses taken over the period 1881 to 1954 are shown in the following table. The figures relate to the political boundaries of the several States (or Colonies) and Territories as they existed at the date of each census, except that the Northern Territory has been shown separately from South Australia for the three censuses prior to its transfer from that State. The years of formation of the separate Colonies and transfer of the Territories are shown in Chapter 1, § 4 and § 5. The total populations recorded at the censuses taken in the Colonies from 1828 to 1876 were shown in Official Year Book No. 140, page 326.

POPULATION: AUSTRALIAN CENSUSES, 1881 TO 1954.

Census.	Population Enumerated (excluding Full-blood Aborigines).								
	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T. (a)	Aust.
MALES.									
3rd April, 1881 ..	410,211	451,623	125,325	146,183	17,062	61,162	3,347	..	1,214,913
5th April, 1891 ..	609,666	598,222	223,779	162,241	29,807	77,560	4,560	..	1,705,835
31st March, 1901 ..	710,005	603,720	277,003	180,485	112,875	89,624	4,216	..	1,977,928
3rd April, 1911 ..	857,698	655,591	329,506	207,358	161,565	97,591	2,734	992	2,313,035
4th April, 1921 ..	1,071,501	754,724	398,969	248,267	177,278	107,743	2,821	1,567	2,762,870
30th June, 1933 ..	1,318,471	903,244	497,217	290,962	233,937	115,097	3,378	4,805	3,367,111
30th June, 1947 ..	1,492,211	1,013,867	567,471	320,031	258,076	129,244	7,378	9,092	3,797,370
30th June, 1954 ..	1,720,860	1,231,099	676,252	403,903	330,358	157,129	10,288	16,229	4,546,118
FEMALES.									
3rd April, 1881 ..	339,614	409,943	88,200	130,231	12,646	54,543	104	..	1,035,281
5th April, 1891 ..	517,471	541,866	169,939	153,292	19,975	69,107	338	..	1,471,988
31st March, 1901 ..	644,841	597,350	221,126	177,861	71,249	82,851	595	..	1,795,873
3rd April, 1911 ..	789,036	659,960	276,307	201,200	120,549	93,620	576	722	2,141,970
4th April, 1921 ..	1,028,870	776,556	357,003	246,893	155,454	106,037	1,046	1,005	2,672,864
30th June, 1933 ..	1,282,376	917,017	450,317	289,987	204,915	112,502	1,472	4,142	3,262,728
30th June, 1947 ..	1,492,627	1,040,834	538,944	326,042	244,404	127,834	3,490	7,813	3,781,988
30th June, 1954 ..	1,702,669	1,221,242	642,007	393,191	309,413	151,623	6,181	14,086	4,440,412
PERSONS.									
3rd April, 1881 ..	749,825	861,566	213,525	276,414	29,708	115,705	3,451	..	2,250,194
5th April, 1891 ..	1,127,137	1,140,088	393,718	315,533	49,782	146,667	4,898	..	3,177,823
31st March, 1901 ..	1,354,846	1,201,070	498,129	358,346	184,124	172,475	4,811	..	3,773,801
3rd April, 1911 ..	1,646,734	1,315,551	605,813	408,558	282,114	191,211	3,310	1,714	4,455,005
4th April, 1921 ..	2,100,371	1,531,280	755,972	495,160	332,732	213,780	3,867	2,572	5,435,734
30th June, 1933 ..	2,600,847	1,820,261	947,534	580,949	438,852	227,599	4,850	8,947	6,629,839
30th June, 1947 ..	2,984,838	2,054,701	1,106,415	646,073	502,480	257,078	10,868	16,905	7,579,358
30th June, 1954 ..	3,423,529	2,452,341	1,318,259	797,094	639,771	308,752	16,469	30,315	8,986,530

(a) Part of New South Wales prior to 1911.

The results of the 1954 Census of the Australian External Territories are shown in § 13 of this chapter (*see* p. 328).

3. Increase since 1881 Census.—The increases in the populations of the several States and Territories and of Australia as a whole during the last seven intercensal periods are shown in the following table, which distinguishes the numerical increases, the proportional increases (which do not allow for the differences in the length of the intercensal periods) and the average annual rates of increase.

POPULATION: INTERCENSAL INCREASES.
(EXCLUDING FULL-BLOOD ABORIGINALS.)

State or Territory.	1881-1891 (10 years).	1891-1901 (10 years).	1901-1911 (10 years).	1911-1921 (10 years).	1921-1933 (12½ years).	1933-1947 (14 years).	1947-1954 (7 years).
NUMERICAL INCREASE.							
New South Wales(a)	377,312	227,709	293,602	453,637	500,476	383,991	438,691
Victoria ..	278,522	60,982	114,481	215,729	288,981	234,440	397,640
Queensland ..	180,193	104,411	107,684	150,159	191,562	158,881	211,844
South Australia ..	39,119	42,813	50,212	86,602	85,789	65,124	151,021
Western Australia	20,074	134,342	97,990	50,618	106,120	63,628	137,291
Tasmania ..	30,962	25,808	18,736	22,569	13,819	29,479	51,674
Northern Territory	1,447	-87	-1,501	557	983	6,018	5,601
Aust. Cap. Terr.(b)	..	..	..	858	6,375	7,958	13,410
Australia ..	927,629	595,978	681,204	980,729	1,194,105	949,519	1,407,172

PROPORTIONAL INCREASE—PER CENT.							
New South Wales(a)	50.32	20.20	21.67	27.55	23.83	14.76	14.70
Victoria ..	32.33	5.35	9.53	16.40	18.87	12.88	19.35
Queensland ..	84.39	26.52	21.62	24.79	25.34	16.77	19.15
South Australia ..	14.15	13.57	14.01	21.20	17.33	11.21	23.38
Western Australia	67.57	269.86	53.22	17.94	31.89	14.50	27.32
Tasmania ..	26.76	17.60	10.86	11.80	6.46	12.95	20.10
Northern Territory	41.93	-1.78	-31.20	16.83	25.42	124.08	51.54
Aust. Cap. Terr.(b)	..	..	..	50.06	247.86	88.95	79.33
Australia ..	41.22	18.75	18.05	22.01	21.97	14.32	18.57

AVERAGE ANNUAL RATE OF INCREASE—PER CENT.							
New South Wales(a)	4.16	1.86	1.97	2.46	1.76	0.99	1.98
Victoria ..	2.84	0.52	0.91	1.53	1.42	0.87	2.56
Queensland ..	6.31	2.38	1.98	2.24	1.86	1.11	2.53
South Australia ..	1.33	1.28	1.32	1.94	1.31	0.76	3.05
Western Australia	5.30	13.97	4.36	1.66	2.29	0.97	3.51
Tasmania ..	2.40	1.63	1.04	1.12	0.51	0.87	2.65
Northern Territory	3.56	-0.18	-3.67	1.57	1.87	5.93	6.12
Aust. Cap. Terr.(b)	..	..	..	4.14	10.71	4.65	8.70
Australia ..	3.51	1.73	1.67	2.01	1.63	0.96	2.46

(a) Includes Australian Capital Territory prior to 1911. (b) Part of New South Wales prior to 1911.
NOTE.—Minus sign (—) denotes decrease.

§ 3. Growth and Distribution of Population.

1. *Growth of Population.*—The table which follows shows the growth in the population of each sex in the various States and Territories as measured by the estimated population at 31st December in 1900 and thereafter at decennial intervals to 1960. Each year from 1956 to 1960 is included in order to show recent growth in greater detail.

ESTIMATED POPULATION: 1900 TO 1960.
(EXCLUDING FULL-BLOOD ABORIGINALS.)

At 31st Dec.—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T. (a)	Australia.
MALES.									
1900	716,047	601,773	274,684	180,349	110,088	89,763	4,288	..	1,976,992
1910	858,181	646,482	325,513	206,557	157,971	98,866	2,738	..	2,296,308
1920	1,067,945	753,803	396,555	245,300	176,895	107,259	2,911	1,062	2,751,730
1930	1,294,419	892,422	481,559	288,618	232,868	113,505	3,599	4,732	3,311,722
1940b	1,402,297	947,037	536,712	297,885	248,734	123,650	6,337	7,856	3,570,508
1950	1,627,618	1,114,497	620,329	364,705	294,758	147,103	9,414	13,021	4,191,445
1956	1,802,142	1,328,357	708,246	437,426	353,082	171,151	10,545	c19,772	4,830,721
1957	1,837,358	1,360,540	718,166	449,282	360,031	175,887	10,621	20,820	4,932,705
1958	1,865,917	1,394,876	729,148	459,522	366,356	179,818	10,681	22,957	5,029,275
1959	1,895,903	1,431,373	740,622	473,241	372,252	185,162	11,308	26,386	5,136,247
1960	1,937,580	1,473,501	750,751	485,424	379,751	190,304	11,304	29,140	5,257,755

For footnotes see next page

ESTIMATED POPULATION: 1900 TO 1960—*continued*.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

At 31st Dec.—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T. (a)	Australia.
FEMALES.									
1900	644,258	594,440	219,163	176,901	69,879	83,137	569	..	1,788,347
1910	785,674	654,926	273,503	200,311	118,861	94,937	563	..	2,128,775
1920	1,023,777	774,106	335,069	245,706	154,428	105,493	1,078	910	2,659,567
1930	1,251,934	900,183	435,177	285,849	198,742	111,792	1,365	3,987	3,189,029
1940 ^b	1,388,651	967,881	494,740	301,171	225,342	120,352	2,637	6,304	3,507,078
1950	1,613,439	1,122,685	585,089	358,138	277,891	143,230	5,006	10,558	4,116,036
1956	1,786,202	1,304,266	670,701	424,486	331,753	161,659	7,308	c 16,238	4,702,613
1957	1,823,139	1,340,095	683,261	436,921	340,183	164,979	7,894	18,294	4,814,766
1958	1,859,769	1,376,043	695,670	448,470	347,227	166,727	8,441	19,996	4,922,343
1959	1,894,367	1,411,530	706,576	461,186	354,237	169,420	9,046	23,564	5,029,926
1960	1,935,229	1,452,032	716,128	471,515	360,494	169,485	9,400	26,132	5,140,415

PERSONS.

1900	1,360,305	1,196,213	493,847	357,250	179,967	172,900	4,857	..	3,765,339
1910	1,643,855	1,301,408	599,016	406,868	276,832	193,803	3,301	..	4,425,083
1920	2,091,722	1,527,909	750,624	491,006	331,323	212,752	3,989	1,972	5,411,297
1930	2,546,353	1,792,605	916,736	574,467	431,610	225,297	4,964	8,719	6,500,751
1940 ^b	2,790,948	1,914,191	1,031,452	599,056	474,076	244,002	8,974	14,160	7,077,586
1950	3,241,057	2,237,182	1,205,418	722,843	572,649	290,333	14,420	23,579	8,307,481
1956	3,588,344	2,632,623	1,378,947	861,912	684,835	332,810	17,853	c 36,010	9,533,334
1957	3,660,497	2,700,635	1,401,427	886,203	700,214	340,866	18,515	39,114	9,747,471
1958	3,725,686	2,770,919	1,424,818	907,992	713,583	346,545	19,122	42,953	9,951,618
1959	3,790,270	2,842,903	1,447,198	934,427	726,489	354,582	20,354	49,950	10,166,173
1960	3,872,809	2,925,533	1,466,879	956,939	740,245	359,789	20,704	55,272	10,398,170

(a) Part of New South Wales prior to 1911. (b) Includes all defence personnel enlisted in Australia irrespective of movements subsequent to enlistment. (c) Revised estimates based on the June, 1957, Population Count of Canberra are as follows:—males 19,553, females 17,275, persons 36,828.

Estimates of population for intercensal years are obtained in the manner outlined in § 1.

The estimated population at 31st December each year from 1788 to 1946 on the same basis as in the table above was shown in *Demography*, Bulletin No. 67, 1949, and for the period 1881 to 1959 in *Demography*, Bulletin No. 77. A graph illustrating the growth of the population of Australia and of each State and Territory appears on page 307.

2. **Present Numbers.**—The population of Australia at 31st December, 1960, was estimated at 10,398,170 persons, of whom 5,257,755, or 50.56 per cent., were males and 5,140,415, or 49.44 per cent., were females. The increase during 1960 was 231,997, equal to 2.28 per cent., males having increased by 121,508, or 2.37 per cent., and females by 110,489, or 2.20 per cent. This increase was the result of an excess of births over deaths of 141,862 and a net gain by migration of 90,135 persons.

3. **Proportion of Area and Population, Density and Masculinity.**—The previous table shows the number of persons in each of the States and Territories at 31st December, 1960. In the following table, the proportions of the total area and of the total population represented by each State and Territory are given, together with the density and the masculinity of the population.

DENSITY AND MASCULINITY OF POPULATION, 1960.

(EXCLUDING FULL-BLOOD ABORIGENALS.)

State or Territory.	Proportion of Total Area. (Per cent.)	Proportion of Estimated Population, 31st December, 1960. (Per cent.)			Density. (a)	Masculinity. (b)
		Males.	Females.	Persons.		
New South Wales	10.42	36.85	37.65	37.25	12.52	100.12
Victoria	2.96	28.03	28.25	28.13	33.29	101.48
Queensland	22.45	14.28	13.93	14.11	2.20	104.83
South Australia	12.79	9.23	9.17	9.20	2.52	102.95
Western Australia	32.85	7.22	7.01	7.12	0.76	105.34
Tasmania	0.88	3.62	3.30	3.46	13.72	112.28
Northern Territory	17.62	0.22	0.18	0.20	0.04	120.26
Australian Capital Territory ..	0.03	0.55	0.51	0.53	58.86	111.51
Australia	100.00	100.00	100.00	100.00	3.50	102.28

(a) Number of persons per square mile.

(b) Number of males per 100 females.

Additional information regarding density and masculinity of population appears in later sections of this chapter.

4. **Urban and Rural Distribution.**—Particulars of the distribution of the population amongst metropolitan urban, other urban and rural areas in each State and Territory are available only from a census. Particulars of the distribution at the 1947 Census were shown in Official Year Book No. 39, pages 521–524.

At the Census of 30th June, 1954, the number of persons and the proportion of the total population of Australia in each division were:—metropolitan urban 4,845,230, 53.92 per cent.; other urban 2,230,039, 24.81 per cent.; rural 1,887,892, 21.01 per cent. Migratory* population, 23,369, accounted for the remaining 0.26 per cent.

Of the States, Victoria had the largest proportion of population residing in the metropolitan area (62.15 per cent.), but was closely followed in this respect by South Australia (60.66 per cent.). Percentages for the other States were:—Western Australia, 54.50; New South Wales, 54.42; Queensland, 38.10; and Tasmania, 30.84.

A feature of the metropolitan population is its higher femininity as compared with the population of extra-metropolitan areas. In 1933, 52.5 per cent. of the metropolitan population was composed of females; in 1947, the proportion had fallen slightly to 51.9 per cent., being highest in Tasmania at 52.3 per cent.; at the Census of 30th June, 1954, the proportion had fallen to 51.0 per cent., there being little difference in the proportions as between the several States. The proportion of females in extra-metropolitan areas was between 46 per cent. and 48 per cent. at each of these three censuses.

Metropolitan Urban Divisions include the capital cities of the States and (included in 1954 for the first time) Canberra, the capital city of Australia, the boundaries of the capital cities being determined for census purposes by the Statisticians of the States in collaboration with the Commonwealth Statistician, and normally including the city proper and all contiguous urban areas. In order to conform to the growth of the metropolitan urban population, the boundaries are reviewed at each census and adjustments made, wherever necessary, to embrace contiguous urban areas that have developed since the previous census. Amendments were made prior to the Census of 1954 to the boundaries of the Metropolitan Urban Divisions in New South Wales, Victoria and Tasmania.

Other Urban Divisions comprise Darwin, the capital city of the Northern Territory, all separately incorporated cities and towns, and all other towns with a population of 1,000 persons or more (750 in Tasmania), outside the Metropolitan Urban Divisions. The inclusion in the Other Urban Divisions in 1954 of the larger towns not separately incorporated was a significant departure from the classification adopted at previous censuses, when these towns (in all States except Tasmania) were included in the Rural Divisions, and the Other Urban Divisions (or Provincial Urban Divisions) were restricted to separately incorporated provincial cities and towns only.

Rural Divisions comprise the remaining portions of each State and Territory, and are affected by the intercensal changes in the areas of the Metropolitan Urban and Other Urban Divisions. As already mentioned, the Rural Divisions in 1954 exclude the towns of 1,000 persons or more (750 in Tasmania) which were not separately incorporated.

*See top of next page for definition of "migratory".

The term "Migratory" refers to persons, not elsewhere enumerated, who at midnight between 30th June and 1st July, 1954, were travelling on ships in Australian waters or on long-distance trains or aircraft.

As particulars of the population in urban and rural divisions for the 1947 Census are not directly available on the basis of the 1954 composition of these divisions, adjustments have been made to the 1947 figures in order to provide approximate comparisons with 1954 for the purposes of the following table. Adjustments to 1947 Metropolitan figures have been made in New South Wales, Victoria, Tasmania and the Australian Capital Territory, while in all States and in the Northern Territory adjustments have been made to allow for the transfer of towns of 1,000 persons or more from Rural to Other Urban.

URBAN AND RURAL POPULATION(a): CENSUS, 30th JUNE, 1954.
(EXCLUDING FULL-BLOOD ABORIGINALS.)

Division.	1954 Census.			Proportion of Total Population of State. (Per cent.)		Percentage Increase since the 1947 Census.
	Males.	Females.	Persons.	1947 Census.	1954 Census.	
NEW SOUTH WALES.						
Urban—						
Metropolitan	909,978	953,183	1,863,161	55.14	54.42	13.20
Other ..	485,128	480,259	965,387	27.19	28.20	18.94
Rural.. ..	319,562	268,549	588,111	17.42	17.18	13.11
Migratory ..	6,192	678	6,870	0.25	0.20	-6.43
Total ..	1,720,860	1,702,669	3,423,529	100.00	100.00	14.70
VICTORIA.						
Urban—						
Metropolitan	747,712	776,399	1,524,111	62.91	62.15	17.90
Other ..	233,083	236,980	470,063	18.08	19.17	26.52
Rural.. ..	243,809	206,317	450,126	18.82	18.35	16.42
Migratory ..	6,495	1,546	8,041	0.19	0.33	108.80
Total ..	1,231,099	1,221,242	2,452,341	100.00	100.00	19.35
QUEENSLAND.						
Urban—						
Metropolitan	244,904	257,416	502,320	36.34	38.10	24.95
Other ..	230,157	229,923	460,080	34.18	34.90	21.65
Rural.. ..	198,605	154,283	352,888	29.31	26.77	8.82
Migratory ..	2,586	385	2,971	0.17	0.23	57.45
Total ..	676,252	642,007	1,318,259	100.00	100.00	19.15
SOUTH AUSTRALIA.						
Urban—						
Metropolitan	237,651	245,857	483,508	59.20	60.66	26.42
Other ..	55,853	54,254	110,107	13.69	13.81	24.48
Rural.. ..	108,199	92,934	201,133	26.85	25.23	15.95
Migratory ..	2,200	146	2,346	0.26	0.30	37.92
Total ..	403,903	393,191	797,094	100.00	100.00	23.38
WESTERN AUSTRALIA.						
Urban—						
Metropolitan	171,832	176,815	348,647	54.24	54.50	27.93
Other ..	53,868	51,550	105,418	16.68	16.48	25.75
Rural.. ..	102,753	80,686	183,439	28.49	28.67	28.15
Migratory ..	1,905	362	2,267	0.59	0.35	-23.95
Total ..	330,358	309,413	639,771	100.00	100.00	27.32

(a) See letterpress preceding this table for definitions of urban, rural, etc., and for reference to the adjustments to 1947 Census figures in order to provide approximate comparisons on the 1954 Census basis.

NOTE.—Minus sign (—) denotes decrease.

URBAN AND RURAL POPULATION(a): CENSUS, 30TH JUNE, 1954—continued.

Division.	1954 Census.			Proportion of Total Population of State. (Per cent.)		Percentage Increase since the 1947 Census.
	Males.	Females.	Persons.	1947 Census.	1954 Census.	
TASMANIA.						
Urban—						
Metropolitan	46,544	48,662	95,206	30.19	30.84	22.67
Other ..	53,521	54,607	108,128	33.45	35.02	25.74
Rural. . .	56,418	48,350	104,768	36.09	33.93	12.93
Migratory ..	646	4	650	0.27	0.21	-7.54
<i>Total ..</i>	<i>157,129</i>	<i>151,623</i>	<i>308,752</i>	<i>100.00</i>	<i>100.00</i>	<i>20.10</i>
NORTHERN TERRITORY.						
Urban—						
Metropolitan	..	..	..	..	..	..
Other ..	6,378	4,478	10,856	65.14	65.92	53.35
Rural. . .	3,692	1,697	5,389	33.59	32.72	47.60
Migratory ..	218	6	224	1.27	1.36	62.32
<i>Total ..</i>	<i>10,288</i>	<i>6,181</i>	<i>16,469</i>	<i>100.00</i>	<i>100.00</i>	<i>51.54</i>
AUSTRALIAN CAPITAL TERRITORY.						
Urban—						
Metropolitan	15,076	13,201	28,277	89.65	93.28	86.57
Other ..	..	..	..	..	..	..
Rural. . .	1,153	885	2,038	10.35	6.72	16.52
Migratory ..	..	..	..	..	..	..
<i>Total ..</i>	<i>16,229</i>	<i>14,086</i>	<i>30,315</i>	<i>100.00</i>	<i>100.00</i>	<i>79.33</i>
AUSTRALIA.						
Urban—						
Metropolitan	2,373,697	2,471,533	4,845,230	53.94	53.92	18.51
Other ..	1,117,988	1,112,051	2,230,039	24.10	24.81	22.08
Rural. . .	1,034,191	853,701	1,887,892	21.71	21.01	14.72
Migratory ..	20,242	3,127	23,369	0.25	0.26	25.62
<i>Total ..</i>	<i>4,546,118</i>	<i>4,440,412</i>	<i>8,986,530</i>	<i>100.00</i>	<i>100.00</i>	<i>18.57</i>

(a) See letterpress preceding this table for definitions of urban, rural, etc., and for reference to the adjustments to 1947 Census figures in order to provide approximate comparisons on the 1954 Census basis.

NOTE.—Minus sign (—) denotes decrease.

5. Capital Cities: Australia and Other Countries.—In Australia there is an abnormal concentration of population in the capital cities. A comparison with the capitals of various other countries is given in the following table.

POPULATION OF CAPITAL CITIES: AUSTRALIA AND OTHER COUNTRIES.
(‘000.)

State or Country.	Metropolis.	Year.	Metro- politan Popu- lation.	Country.	Metropolis.	Year.	Metro- politan Popu- lation.
New South Wales ..	Sydney ..	1960	2,098	Brazil ..	Rio de Janeiro	1957	2,940
Victoria ..	Melbourne ..	1960	1,831	Czechoslovakia ..	Prague ..	1959	989
Queensland ..	Brisbane ..	1960	(a) 578	Denmark ..	Copenhagen	1955	960
South Australia ..	Adelaide ..	1960	(a) 577	Egypt ..	Cairo ..	1957	2,877
Western Australia ..	Perth ..	1960	(a) 395	France ..	Paris ..	1954	2,850
Tasmania ..	Hobart ..	1960	(a) 111	Germany ..	Berlin ..	1958	3,316
Australian Cap. Ter.	Canberra ..	1960	(a) 50	Greece ..	Athens(c)	1954	1,200
England ..	London(b) ..	1959	8,205	Hungary ..	Budapest ..	1960	1,807
Scotland ..	Edinburgh ..	1958	470	Italy ..	Rome ..	1960	2,012
Northern Ireland ..	Belfast ..	1957	440	Japan ..	Tokyo(d)	1960	9,167
Ireland, Republic of	Dublin ..	1956	539	Netherlands ..	Amsterdam ..	1957	871
Canada ..	Ottawa ..	1956	345	Norway ..	Oslo ..	1960	473
New Zealand ..	Wellington ..	1960	145	Poland ..	Warsaw ..	1959	1,088
Union of South Africa	Capetown ..	1958	729	Portugal ..	Lisbon ..	1960	790
Argentina ..	Buenos Aires	1958	3,799	Spain ..	Madrid ..	1958	1,898
Belgium ..	Brussels ..	1958	1,004	Sweden ..	Stockholm	1960	806
				U.S.A. ..	Washington	1956	859

(a) Excludes full-blood aboriginals.
Piraeus.

(b) Greater London.

(c) Greater Athens, including

(d) Greater Tokyo.

6. Principal Urban Areas.—The following table shows the estimated population of the principal urban incorporated areas (population 6,000 or more) in each State and Territory of Australia at 30th June, 1960.

ESTIMATED POPULATION OF PRINCIPAL URBAN INCORPORATED AREAS:
AUSTRALIA.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

City or Town.	Popu- lation.	City or Town.	Popu- lation.	City or Town.	Popu- lation.
New South Wales.		Victoria.		South Australia.	
Sydney and Suburbs(a) ..	2,098,490	Melbourne and Suburbs(a) ..	1,831,100	Adelaide and Suburbs(a) ..	577,000
Newcastle and Suburbs(b) ..	203,650	Geelong and Suburbs(b) ..	90,380	Port Pirie ..	15,300
Greater Wollongong ..	125,090	Ballarat and Suburbs(b) ..	54,800	Mount Gambier ..	13,950
Greater Cessnock ..	37,320	Bendigo and Suburbs(b) ..	42,120	Whyalla ..	10,650
Broken Hill ..	33,210	Warrnambool ..	14,780	Port Augusta ..	9,250
Maitland ..	28,300	Moe ..	13,920	Port Lincoln ..	7,400
Penrith ..	26,500	Shepparton ..	13,150		
Blue Mountains ..	24,300	Wangaratta ..	13,080	Western Australia.	
Wagga Wagga ..	21,550	Mildura ..	12,620	Perth and Suburbs(a) ..	395,000
Goulburn ..	21,150	Hamilton ..	9,720	Kalgoorlie and Suburbs(b) ..	22,529
Orange ..	19,500	Colac ..	9,290	Bunbury ..	12,950
Lismore ..	19,400	Horsham ..	9,230	Geraldton ..	10,440
Albury ..	18,900	Ararat ..	8,100	Albany ..	10,000
Tamworth ..	18,700	Sale ..	7,630	Norham ..	8,259
Bathurst ..	18,000	Benalla ..	7,520		
Campbelltown ..	17,230	Maryborough ..	7,510	Tasmania.	
Lithgow ..	15,600	Castlemaine ..	7,290	Hobart and Suburbs(a) ..	111,250
Grafton ..	15,450	Echuca ..	6,370	Launceston and Suburbs(b) ..	58,600
Dubbo ..	14,720	Swan Hill ..	6,290	Burnie(c) ..	13,220
Shellharbour ..	11,800	Portland ..	6,020	Devonport(c) ..	12,100
Taree ..	10,300	Queensland.			
Armidale ..	9,900	Brisbane and Suburbs(a) ..	578,000	Northern Territory.	
Queanbeyan ..	9,870	Toowoomba ..	50,000	Darwin ..	9,000
Cooma ..	9,800	Townsville ..	47,000		
Parkes ..	8,800	Ipswich ..	45,500	Australian Capital Territory.	
Casino ..	8,570	Rockhampton ..	45,000	Canberra(a) ..	50,237
Inverell ..	8,340	Gold Coast ..	26,200		
Kempsey ..	8,150	Cairns ..	24,200		
Forbes ..	8,050	Bundaberg ..	24,000		
Muswellbrook ..	6,830	Maryborough ..	20,000		
Moree ..	6,300	Redcliffe ..	20,000		
Gunnedah ..	6,280	Mackay ..	16,500		
Cowra ..	6,200	Gympie ..	10,600		
Cootamundra ..	6,190	Warwick ..	10,200		
	6,100	Gladstone ..	7,400		
		Dalby ..	7,200		
		Charters Towers ..	6,800		

(a) Metropolitan Area.

(b) Entire Urban Area.

(c) Non-municipal town.

7. **Urban Areas Outside Metropolitan Areas.**—The proportion of the total population of each State which was located in incorporated urban provincial areas at the 1933 and 1947 Censuses was shown in Official Year Book No. 39, pages 522-3. In Official Year Book No. 40, page 334, a table was given showing aggregate population at the 1947 Census of all cities and towns outside the metropolitan area of each State with 2,000 or more and 3,000 or more inhabitants, irrespective of whether such centres were incorporated separately or not. In addition, the proportion of the aggregate population of these cities and towns to the total population of the State was shown. The following table shows similar particulars for the 1954 Census.

**AGGREGATE POPULATION OF NON-METROPOLITAN CITIES AND TOWNS OF
SPECIFIED SIZE: CENSUS, 30th JUNE, 1954.**

(EXCLUDING FULL-BLOOD ABORIGINALS.)

State or Territory.	Cities and Towns outside Metropolitan Area with Population of—					
	2,000 and over.			3,000 and over.		
	Number.	Population.	Proportion of Total Population.	Number.	Population.	Proportion of Total Population.
			%			%
New South Wales(a) ..	98	881,391	25.75	67	806,373	23.55
Victoria ..	56	415,690	16.95	40	376,347	15.35
Queensland ..	41	404,520	30.69	29	374,328	28.40
South Australia ..	14	74,502	9.35	9	62,008	7.78
Western Australia(b) ..	13	82,139	12.84	7	67,440	10.54
Tasmania ..	8	89,003	28.83	6	84,312	27.31
Northern Territory ..	2	10,856	65.92	1	8,071	49.01
Australian Capital Territory (c) ..	..	..	..	..	..	..
Total ..	232	1,958,101	21.79	159	1,778,879	19.79

(a) Excludes that part of Liverpool Municipality outside the Metropolitan Area of Sydney.

(b) Excludes that part of Fremantle suburbs outside the Metropolitan Area of Perth.

(c) The only city or town is Canberra, the capital city of Australia, classed as metropolitan.

In the foregoing table, "Urban Areas" comprising two or more Local Government Areas or portions thereof are treated as units. The "Urban Areas" so treated are: in New South Wales, Newcastle; in Victoria, Ballarat, Bendigo, and Geelong; in Western Australia, Kalgoorlie; and in Tasmania, Launceston. The figures in each instance include the populations of the adjoining areas which, together with the city proper, constitute the entire "Urban Area".

The numbers of towns of 2,000 or more inhabitants in New South Wales and Victoria, and of 3,000 or more in New South Wales, show considerable decreases as compared with the figures for the 1947 Census. This is due to the absorption, by the enlarged metropolitan areas, of towns within these ranges which were formerly outside the metropolitan limits and, in New South Wales, to similar absorptions by the City of Blue Mountains, Greater Wollongong and Newcastle Urban Area.

8. Principal Cities in the World.—The following table shows the population of the world's largest cities at the latest available date:—

POPULATION OF THE WORLD'S LARGEST CITIES.

(Details for Commonwealth countries are printed in italics.)

City.	Country.	Year.	City Population ('000).	City.	Country.	Year.	City Population ('000).
Tokyo(a) ..	Japan ..	1959	9,021	Montreal(d) ..	Canada ..	1956	1,621
London(b) ..	England ..	1959	8,205	Chungking ..	China ..	1953	1,620
New York ..	U.S.A. ..	1958	8,074	Naples ..	Italy ..	1960	1,555
Shanghai ..	China ..	1953	6,204	Teheran ..	Iran ..	1956	1,513
Moscow ..	U.S.S.R. ..	1959	5,032	Sian ..	China ..	1957	1,500
Bombay ..	India ..	1960	4,941	Canton ..	China ..	1950	1,496
Buenos Aires ..	Argentina ..	1958	3,799	Milan ..	Italy ..	1960	1,482
Chicago ..	U.S.A. ..	1950	3,621	Barcelona ..	Spain ..	1958	1,446
Berlin ..	Germany ..	1958	3,316	Madras ..	India ..	1958	1,416
Mexico City ..	Mexico ..	1959	3,302	Alexandria ..	Egypt ..	1959	1,416
Leningrad(c) ..	U.S.S.R. ..	1959	3,300	Nagoya ..	Japan ..	1957	1,387
Sao Paulo ..	Brazil ..	1957	3,150	Delhi ..	India ..	1959	1,384
Calcutta ..	India ..	1960	3,040	Toronto(e) ..	Canada ..	1956	1,358
Rio de Janeiro ..	Brazil ..	1957	2,940	Bangkok ..	Thailand ..	1956	1,328
Cairo ..	Egypt ..	1957	2,877	Bucharest ..	Romania ..	1958	1,279
Paris ..	France ..	1954	2,850	Istanbul ..	Turkey ..	1960	1,215
Peking ..	China ..	1953	2,768	Lima(f) ..	Peru ..	1959	1,213
Tientsin ..	China ..	1953	2,694	Kyoto ..	Japan ..	1957	1,210
Osaka ..	Japan ..	1957	2,632	Athens(g) ..	Greece ..	1954	1,200
Shenyang ..	China ..	1953	2,290	Yokohama ..	Japan ..	1957	1,182
Los Angeles ..	U.S.A. ..	1956	2,244	Caracas ..	Venezuela ..	1958	1,163
Sydney and Suburbs ..	Australia ..	1960	2,098	Kurachi ..	Pakistan ..	1951	1,126
Philadelphia ..	U.S.A. ..	1950	2,072	Manila ..	Philippines ..	1955	1,118
Rome ..	Italy ..	1960	2,012	Kiev ..	U.S.S.R. ..	1959	1,102
Madrid ..	Spain ..	1958	1,898	Birmingham ..	England ..	1959	1,092
Diakarta ..	Indonesia ..	1956	1,892	Warsaw ..	Poland ..	1959	1,088
Detroit ..	U.S.A. ..	1950	1,850	Johannesburg ..	South Africa ..	1959	1,078
Melbourne and Suburbs ..	Australia ..	1960	1,831	Glasgow ..	Scotland ..	1959	1,077
Hamburg ..	Germany ..	1960	1,827	Bogota ..	Colombia ..	1958	1,065
Budapest ..	Hungary ..	1960	1,807	Lu-ta ..	China ..	1950	1,054
Wuhan ..	China ..	1956	1,800	Pusan ..	Korea, South ..	1958	1,045
Saigon-Cholon ..	Viet-Nam, Sth. ..	1957	1,779	Munich ..	Germany ..	1958	1,034
Seoul ..	Korea, South ..	1958	1,643	Nanking ..	China ..	1950	1,020
Santiago ..	Chile ..	1956	1,628	Kobe ..	Japan ..	1957	1,012
Vienna ..	Austria ..	1956	1,623	Brussels(h) ..	Belgium ..	1958	1,004
				Victoria ..	Hong Kong ..	1956	1,000

(a) Greater Tokyo. (b) Greater London. (c) Greater Leningrad. (d) Greater Montreal. (e) Greater Toronto. (f) Greater Lima. (g) Greater Athens. (h) Includes Shaerbeek.

§ 4. Mean Population.

1. General.—Mean populations are calculated for twelve-month periods to provide a satisfactory average basis for calculations requiring allowance for the continuous change in population figures during such periods.

2. Method of Calculation.—From 1901 onwards the mean population for any year has been calculated by the formula:—

$$\text{Mean Population} = \frac{a + 4b + 2c + 4d + e}{12}$$

where a , b , c , d and e , respectively, are the populations at the end of the quarter immediately preceding the year and at the end of each of the four succeeding quarters; e.g., in the case of a calendar year, 31st December of the preceding year and 31st March, 30th June, 30th September and 31st December of the year under consideration. This formula gives a close approximation to the mean of a theoretical population progressing smoothly through the five values a , b , c , d , e .

3. Results.—(i) *Calendar Years.* The following table shows the mean population of each State and Territory for the calendar years 1951 to 1960:—

MEAN POPULATION: CALENDAR YEARS.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Year ended 31st Dec.—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Australia.
1951 ..	3,279,415	2,276,272	1,223,719	732,537	580,317	288,294	15,179	24,658	8,420,391
1952 ..	3,341,476	2,343,610	1,255,896	755,042	600,615	298,361	15,087	26,570	8,636,657
1953 ..	3,386,556	2,395,851	1,287,231	776,355	621,034	306,318	15,534	28,724	8,817,603
1954 ..	3,428,488	2,453,458	1,313,055	796,361	640,140	311,128	16,214	a 30,383	8,989,227
1955 ..	3,492,385	2,526,275	1,338,995	820,143	658,747	316,153	17,040	a 32,412	9,202,150
1956 ..	3,555,854	2,604,283	1,366,496	848,531	677,317	322,216	17,896	a 34,698	9,427,291
1957 ..	3,622,557	2,673,654	1,392,384	874,159	691,723	330,200	18,730	a 37,631	9,641,038
1958 ..	3,693,282	2,740,286	1,414,362	896,933	705,600	337,735	19,226	41,110	9,848,534
1959 ..	3,758,881	2,812,563	1,437,230	921,042	718,830	344,363	20,476	46,618	10,060,003
1960 ..	3,829,952	2,891,387	1,458,430	944,785	731,403	350,440	21,334	52,562	10,280,293

(a) Revised estimates based on the June, 1957, Population Count of Canberra are as follows:—1954, 30,424; 1955, 32,738; 1956, 35,352; 1957, 37,999.

(ii) *Financial Years.* The following table shows the mean population of each State and Territory for the years ended 30th June, 1951 to 1960:—

MEAN POPULATION: FINANCIAL YEARS.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Australia.
1951 ..	3,238,406	2,242,882	1,207,194	721,845	570,346	283,526	14,827	24,017	8,303,043
1952 ..	3,311,840	2,309,708	1,239,868	743,310	589,887	293,340	15,131	25,545	8,528,629
1953 ..	3,366,358	2,372,366	1,272,244	766,538	611,191	302,529	15,241	27,721	8,734,188
1954 ..	3,405,414	2,422,839	1,300,464	785,981	630,705	309,416	15,930	29,595	8,900,344
1955 ..	3,459,538	2,488,115	1,325,336	807,501	648,930	312,987	16,536	a 31,249	9,090,192
1956 ..	3,524,379	2,564,849	1,352,629	834,465	669,040	319,192	17,474	a 33,642	9,315,670
1957 ..	3,588,033	2,640,105	1,380,466	861,373	684,518	326,137	18,340	a 36,013	9,534,985
1958 ..	3,658,325	2,707,192	1,403,279	885,973	698,548	334,105	19,033	39,283	9,745,738
1959 ..	3,725,916	2,775,750	1,426,019	908,294	712,257	341,274	19,674	43,429	9,952,613
1960 ..	3,792,651	2,851,130	1,448,168	933,550	725,114	347,344	21,113	50,013	10,169,083

(a) Revised estimates based on the June, 1957, Population Count of Canberra are as follows:—1955, 31,411; 1956, 34,132; 1957, 36,749.

§ 5. Elements of Increase.

1. *Natural Increase.*—(i) *General.* The two factors which contribute to the growth of a population are the “natural increase”, i.e., the excess of births over deaths, and the “net migration”, i.e., the excess of arrivals over departures. In earlier issues of the Official Year Book, particulars of the natural increase from 1861 were given for each sex and for each State and Territory (*see* No. 22, p. 899). Figures for more recent years will be found in *Demography*, Bulletin No. 77.

During the present century, the rate of natural increase grew until it reached its maximum at a rate of 17.44 per thousand of mean population in 1914, but it steadily declined after that year to 7.07 in 1934. There was little change until 1939, but during the War and in the early post-war years the rate rose sharply, reaching 14.37 in 1947. Since 1947, the rate has been fairly stable at 13 or 14 per thousand of mean population.

In the following table, particulars of the natural increase in each State and Territory are given for each sex for each five-year period from 1936 to 1960 and for each of the years 1956 to 1960.

POPULATION: NATURAL INCREASE (EXCESS OF BIRTHS OVER DEATHS)
(EXCLUDING FULL-BLOOD ABORIGINALS.)

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
MALES.									
1936-40(a)	49,092	26,141	23,145	9,187	9,409	6,040	39	397	123,450
1941-45(a)	68,071	42,650	31,871	15,563	12,391	7,234	15	740	178,535
1946-50(a)	93,564	63,984	41,580	24,206	19,367	11,356	412	1,583	256,052
1951-55 ..	97,898	76,291	46,700	26,672	24,658	12,767	767	1,932	287,685
1956-60 ..	108,851	91,635	52,688	29,638	27,311	14,323	1,341	2,829	328,616
1956 ..	20,043	17,253	9,623	5,465	5,605	2,750	201	457	61,397
1957 ..	22,145	17,884	10,416	5,924	5,612	2,851	252	494	65,578
1958 ..	22,530	18,738	10,714	5,919	5,262	2,915	260	569	66,907
1959 ..	21,459	18,311	11,019	5,900	5,486	2,870	306	597	65,948
1960 ..	22,674	19,449	10,916	6,430	5,346	2,937	322	712	68,786

FEMALES.									
1936-40(a)	60,628	28,464	28,991	10,057	13,626	6,574	220	437	148,997
1941-45(a)	75,809	42,538	36,709	15,654	16,029	7,420	232	826	195,217
1946-50(a)	102,959	63,744	46,650	24,605	22,273	11,667	652	1,574	274,124
1951-55 ..	110,115	78,058	52,282	27,641	27,650	13,219	1,029	2,023	312,017
1956-60 ..	119,203	93,494	58,129	31,588	29,680	14,921	1,545	2,681	351,241
1956 ..	21,607	17,254	10,600	5,906	5,739	2,841	248	453	64,648
1957 ..	23,994	18,449	11,668	6,036	6,015	2,914	279	472	69,827
1958 ..	25,165	18,906	11,703	6,385	5,915	2,945	331	524	71,874
1959 ..	24,158	18,856	12,231	6,529	6,128	2,975	366	573	71,816
1960 ..	24,279	20,029	11,927	6,732	5,883	3,246	321	659	73,076

PERSONS.									
1936-40(a)	109,720	54,605	52,136	19,244	23,035	12,614	259	834	272,447
1941-45(a)	143,880	85,188	68,580	31,217	28,420	14,654	247	1,566	373,752
1946-50(a)	196,523	127,728	88,230	48,811	41,640	23,023	1,064	3,157	530,176
1951-55 ..	208,013	154,349	98,982	54,313	52,308	25,986	1,796	3,955	599,702
1956-60 ..	228,054	185,129	110,817	61,226	56,991	29,244	2,886	5,510	679,857
1956 ..	41,650	34,507	20,223	11,371	11,344	5,591	449	910	126,045
1957 ..	46,139	36,333	22,084	11,960	11,627	5,765	531	966	135,405
1958 ..	47,695	37,644	22,417	12,304	11,177	5,860	591	1,093	138,781
1959 ..	45,617	37,167	23,250	12,429	11,614	5,845	672	1,170	137,764
1960 ..	46,953	39,478	22,843	13,162	11,229	6,183	643	1,371	141,862

RATE OF NATURAL INCREASE(b)—PERSONS.									
1936-40(c)	8.06	5.84	10.40	6.48	9.94	10.66	8.27	14.14	7.89
1941-45(c)	10.05	8.64	13.04	10.17	11.86	12.02	4.97	21.85	10.32
1946-50(c)	12.90	12.14	15.56	14.64	16.01	17.41	17.50	32.61	13.65
1951-55 ..	12.29	12.87	15.42	14.00	16.87	17.09	22.72	d27.71	13.61
1956-60 ..	12.35	13.49	15.68	13.65	16.17	17.36	29.55	d25.91	13.80
1956 ..	11.71	13.25	14.80	13.40	16.75	17.35	25.09	d26.23	13.37
1957 ..	12.74	13.59	15.86	13.68	16.81	17.46	28.35	d25.67	14.04
1958 ..	12.91	13.74	15.85	13.72	15.84	17.35	30.74	26.59	14.09
1959 ..	12.14	13.21	16.18	13.49	16.16	16.97	32.82	25.10	13.69
1960 ..	12.26	13.65	15.66	13.93	15.35	17.64	30.14	26.08	13.80

(a) Excess of births over civilian deaths from September, 1939 to June, 1947. (b) Excess of births over deaths per 1,000 of mean population. (c) Excess of births over civilian deaths per 1,000 of mean population from September, 1939, to June, 1947. (d) Rates based on the revised estimates of mean population for the Australian Capital Territory consequent on the June, 1957, Population Count of Canberra are as follows:—1951-55, 27.64; 1956-60, 25.79; 1956, 25.74; 1957, 25.42.

During the first five years of the present century, the average annual increment to the population of Australia by natural increase was 56,886 persons. The increment rose to 81,695 persons a year in 1921-25, but thereafter fell to 52,650 in the five years 1931-35. During 1941-45, the average annual excess of births over civilian deaths was 74,750. Since then the increment has risen, being 106,035 during 1946-50, 119,940 during 1951-55 and 135,971 during 1956-60. The excess for the year 1960 was 141,862.

(ii) *Comparison with other Countries.* Australia has a higher rate of natural increase than most European countries, owing to the fact that it has both a higher birth rate and a lower death rate. The table on pages 331-2, of § 15. International Statistics, shows the rates of natural increase in Australia for the year 1958, and in the other principal countries of the world for 1958 or the latest year for which such information is available.

2. **Recorded Net Interstate and Oversea Migration.***—The other factor of increase in the population, namely, the excess of arrivals over departures, known as "net migration", is, from its nature, much more subject to variation than is "natural increase".

Particulars of the increase by net migration are given below for five-year periods from 1936 to 1960 and for each of the years 1956 to 1960.

POPULATION: INCREASE BY RECORDED NET INTERSTATE AND OVERSEA MIGRATION.(a)

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
MALES.									
1936-40(b)	7,847	12,096	5,249	4,988	2,501	793	2,787	1,176	20,873
1941-45(b)(c)	6,614	17,502	6,487	2,202	9,261	4,312	889	1,822	5,325
1946-50(b)(c)	84,834	58,331	15,038	18,531	23,299	13,178	1,852	2,665	217,728
1951-55 ..	58,092	99,072	18,990	22,681	26,320	9,500	267	(d)5,559	240,481
1956-60 ..	57,763	93,808	5,143	32,373	6,953	9,987	382	(d)8,565	214,210
1956 ..	11,133	23,046	5,703	8,548	1,990	2,407	1	(d)1,569	54,395
1957 ..	13,071	14,299	496	5,932	1,337	1,885	176	(d) 554	36,406
1958 ..	6,029	15,598	268	4,321	1,063	1,016	200	1,568	29,663
1959 ..	8,527	18,186	455	7,819	410	2,474	321	2,832	41,024
1960 ..	19,003	22,679	787	5,753	2,153	2,205	326	2,042	52,722
FEMALES.									
1936-40(b)	14,414	9,409	1,509	2,608	32	1,872	715	656	22,255
1941-45(b)(c)	3,648	10,745	4,759	786	3,654	3,701	357	938	2,484
1946-50(b)(c)	53,087	30,124	10,233	13,464	17,552	7,708	1,643	1,545	135,356
1951-55 ..	43,272	57,924	20,649	23,924	20,359	4,061	1,226	(d)1,928	173,343
1956-60 ..	61,069	91,575	235	28,705	5,551	5,243	1,193	(d)7,727	190,812
1956 ..	9,638	20,049	2,337	7,358	751	989	398	(d) 61	39,603
1957 ..	12,943	17,380	892	6,399	2,415	406	307	(d)1,584	42,326
1958 ..	11,465	17,042	706	5,164	1,129	1,197	216	1,178	35,703
1959 ..	10,440	16,631	1,325	6,187	882	282	239	2,995	35,767
1960 ..	16,583	20,473	2,375	3,597	374	3,181	33	1,909	37,413

For footnotes see next page.

* The subject of overseas migration is dealt with at some length later in this chapter (see p. 317).

POPULATION: INCREASE BY RECORDED NET INTERSTATE AND OVERSEA MIGRATION(a)—*continued*.

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
PERSONS.									
1936-40(b)	22,261	21,505	6,758	- 7,596	-2,469	- 2,665	3,502	1,832	43,128
1941-45(b)(c)	10,262	28,247	-11,246	2,988	-12,915	- 8,013	1,246	- 2,760	7,809
1946-50(b)(c)	137,921	88,455	25,271	31,995	40,851	20,886	3,495	4,210	353,084
1951-55 ..	101,364	156,996	39,639	46,605	46,679	13,561	1,493	(d)7,487	413,824
1956-60 ..	118,832	185,383	5,378	61,078	12,504	4,744	811	d 16,292	405,022
1956 ..	20,771	43,095	8,040	15,906	2,741	1,418	397	(d)1,630	93,998
1957 ..	26,014	31,679	396	12,331	3,752	2,291	131	(d)2,138	78,732
1958 ..	17,494	32,640	974	9,485	2,192	- 181	16	2,746	65,366
1959 ..	18,967	34,817	- 870	14,006	1,292	2,192	560	5,827	76,791
1960 ..	35,586	43,152	- 3,162	9,350	2,527	- 976	- 293	3,951	90,135

(a) Excess of arrivals over departures. Interstate migration relates to recorded movements by rail, sea and air and to certain special movements by road, together with an allowance for unrecorded movement into the Australian Capital Territory. (b) Excludes troop movements from September, 1939, to June, 1947. (c) Excludes interstate migration from July, 1943, to June, 1947. (d) Revised figures of net migration consequent on the June, 1957, Population Count of Canberra are as follows:—1951-55, males 5,428, females 2,549, persons 7,977; 1956-60, males 8,696, females 7,106, persons 15,802; 1956, males 1,481, females 477, persons 1,958; 1957, males 773, females 547, persons 1,320.

NOTE.—Minus sign (—) indicates excess of departures over arrivals.

In the five years ended 1935, there was a net emigration of 10,886 and, in the five years ended 1940, a net immigration of 43,128. During the war period 1941-45 net immigration fell to 7,809 persons. In 1946, there was a net loss by migration of 15,148 persons, due mainly to the departure of refugees and evacuees, and also fiancées, wives and children of British and Allied servicemen. With the resumption of assisted migration there have been considerable net gains in the years since 1946. The net gains for the years 1949 to 1952 were the highest recorded for individual years, with the exception of 1919, for which year troops returning from the 1914-18 War were included. The total net gain from migration from October, 1945 to December, 1960 was 1,172,914.

3. **Total Increase.**—The total increase of the population is obtained by combining the natural increase with the increase by net migration. For the period September, 1939, to June, 1947, deaths of defence personnel have been deducted from the total increase so derived. The results of the 1947 and 1954 Censuses disclosed some unrecorded movements of population during the intercensal periods, July, 1933, to June, 1947, and July, 1947, to June, 1954, and particulars of total increase, after taking into account deaths of defence personnel in the earlier period, have been adjusted for these discrepancies. However, no separate adjustment has been applied to individual elements of increase during the periods, although intercensal discrepancies disclosed by previous censuses were adjusted on recorded oversea departures.

The annual increments to the population for the years 1956 to 1960 are shown below together with the increases for each five years from 1936 to 1960. For the reasons stated in the previous paragraph, figures for the period 1933 to 1954 differ from the totals of figures for natural increase and net migration shown in preceding tables by an amount equal to the net total of deaths of defence personnel and unrecorded movements of population disclosed by the Censuses of 1947 and 1954.

POPULATION: TOTAL INCREASE.

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.	
MALES.										
1936-40(a) ..	57,601	36,297	28,364	4,218	9,995	5,526	2,847	2,622	147,470	
1941-45(a)(b)	62,389	47,747	20,117	14,703	2,856	2,204	915	427	151,358	
1946-50(a)(b)	162,932	119,713	63,500	52,117	43,168	21,249	2,162	4,738	469,579	
1951-55 ..	143,348	173,561	72,591	58,708	50,729	18,891	931	(c) 4,725	523,484	
1956-60 ..	166,614	185,443	57,831	62,011	34,264	24,310	959	c 11,394	542,826	
1956 ..	31,176	40,299	15,326	14,013	7,595	5,157	200	(c) 2,026	115,792	
1957 ..	35,216	32,183	9,920	11,856	6,949	4,736	76	(c) 1,048	101,984	
1958 ..	28,559	34,336	10,982	10,240	6,325	3,931	60	2,137	96,570	
1959 ..	29,986	36,497	11,474	13,719	5,896	5,344	627	3,429	106,972	
1960 ..	41,677	42,128	10,129	12,183	7,499	5,142	—	4	2,754	121,508

FEMALES.									
1936-40(a) ..	75,275	37,026	31,791	8,076	14,458	5,053	997	1,778	174,454
1941-45(a)(b)	79,661	52,442	33,295	17,123	13,156	4,074	657	845	201,253
1946-50(a)(b)	145,127	102,362	57,054	39,844	39,393	18,804	1,712	3,409	407,705
1951-55 ..	141,518	144,278	72,675	53,084	47,372	16,577	1,656	(c) 5,166	482,326
1956-60 ..	180,272	185,069	58,364	60,293	35,231	9,678	2,738	c 10,408	542,053
1956 ..	31,245	37,303	12,937	13,264	6,490	1,852	646	(c) 514	104,251
1957 ..	36,937	35,829	12,560	12,435	8,430	3,320	586	(c) 2,056	112,153
1958 ..	36,630	35,948	12,409	11,549	7,044	1,748	547	1,702	107,577
1959 ..	34,598	35,487	10,906	12,716	7,010	2,693	605	3,568	107,583
1960 ..	40,862	40,502	9,552	10,329	6,257	65	354	2,568	110,489

PERSONS.									
1936-40(a) ..	132,876	73,323	60,155	12,294	24,453	10,579	3,844	4,400	321,924
1941-45(a)(b)	142,050	100,189	53,412	31,826	16,012	6,278	1,572	1,272	352,611
1946-50(a)(b)	308,059	222,075	120,554	91,961	82,561	40,053	3,874	8,147	877,284
1951-55 ..	284,866	317,839	145,266	111,792	98,101	35,468	2,587	(c) 9,891	1,005,810
1956-60 ..	346,886	370,512	116,195	122,304	69,495	33,988	3,697	c 21,802	1,084,879
1956 ..	62,421	77,602	28,263	27,277	14,085	7,009	846	(c) 2,540	220,043
1957 ..	72,153	68,012	22,480	24,291	15,379	8,056	662	(c) 3,104	214,137
1958 ..	65,189	70,284	23,391	21,789	13,369	5,679	607	3,839	204,147
1959 ..	64,584	71,984	22,380	26,435	12,906	8,037	1,232	6,997	214,555
1960 ..	82,539	82,630	19,681	22,512	13,756	5,207	350	5,322	231,997

(a) Includes recorded deaths of defence personnel, whether inside or outside Australia, from September, 1939 to June, 1947. (b) Excludes interstate migration from July, 1943, to June, 1947. (c) Revised figures based on the June, 1957, Population Count of Canberra are as follows:—1951-55, males 4,594, females 5,787, persons 10,381; 1956-60, males 11,525, females 9,787, persons 21,312; 1956, males 1,938 females 930, persons 2,868; 1957, males 1,267, females 1,019, persons 2,286.

4. Rate of Population Growth.—(i) *Australia*. The annual percentage rate of population growth is computed by the compound interest formula. The formula is as follows:—

$$P_1 = P_0 (1+r)^t$$

where P_0 and P_1 are the populations at the beginning and end of the period respectively, t is the number of years intervening and r is the annual rate of growth.

The annual rates of growth per cent., of population in Australia during each of the years 1951 to 1960 were as follows:—1951, 2.65; 1952, 2.48; 1953, 1.87; 1954, 2.11; 1955, 2.45; 1956, 2.36; 1957, 2.25; 1958, 2.09; 1959, 2.16; and 1960, 2.28.

The annual rate of population growth during the present century has been 1.69 per cent., but the results from year to year have deviated widely from this figure. In the following table the period 1st January, 1901, to 31st December, 1960, has been arranged into certain defined groups of years according to the occurrence of influences markedly affecting the growth of population:—

POPULATION: PERIODICAL RATES OF GROWTH.

Period.	Interval. (Years.)	Total Increase. ('000.)	Average Annual Numerical Increase. ('000.)	Annual Rate of Population Growth. (Per cent.)		
				Natural Increase.	Net Migration.	Total.
1901 to 1913 ..	13	1,128	87	1.59	0.53	2.04
1914 to 1923 ..	10	862	86	1.50	0.15	1.64
1924 to 1929 ..	6	680	113	1.28	0.64	1.88
1930 to 1939(a) ..	10	569	57	0.82	0.03	0.85
1940 to 1946(a) ..	7	513	73	1.05	0.01	1.01
1947 to 1952(a) ..	6	1,222	204	1.41	1.23	2.54
1953 to 1960 ..	8	1,659	207	1.37	0.80	2.20

(a) For the period September, 1939, to June, 1947, overseas movements of Australian defence forces have been excluded and deaths of members of these forces, whether occurring in Australia or overseas, have been included.

Up to 1913, the rate of natural increase was rising, and this factor, coupled with the impetus given to immigration from 1911 onwards by increased governmental assistance, was responsible for the comparatively high annual rate of 2.04 per cent. during this period. The 1914–18 War was a dominating influence in the decade 1914–23, and its effects can be seen in the reduction of the rate from 2.04 to 1.64 per cent. From 1924 to 1929, more settled and prosperous conditions were experienced; encouraged migration was resumed on a large scale and, despite a further decline in the rate of natural increase owing to the persistent fall in the birth rate, the annual rate of growth rose to 1.88 per cent. After 1929, came the economic depression, and immigration ceased—in fact, Australia actually lost people through an excess of departures over arrivals in 1930, 1931, 1932 and 1935. The rate of natural increase also fell, and the annual rate of growth of the population fell to 0.85 per cent. With the outbreak of war in 1939, Australia entered a new phase in her demographic history. The immediate effect of the war was to increase the number of marriages and to reverse the downward trend in fertility. The number of births increased each war year from 1940 to 1945, and these increases more than offset the rise in deaths due to war casualties and higher civilian death rates. As might be expected, migration over these years was negligible. The period 1947 to 1960 was marked by a continued high natural increase and a resumption of immigration, the latter resulting in very high net gains in each of the four years 1949 to 1952. The annual rate of growth for the period 1947 to 1952 was 2.54 per cent., and from 1953 to 1960 2.20 per cent.

Rates of population growth from 1881 are shown for each State and Territory of Australia in the annual bulletin, *Demography*.

(ii) *Comparison with Other Countries.* Estimated rates of growth of the population of Australia in comparison with those for other countries of the world for the years 1953–1958 are shown in the table on pages 331–2, of § 15. International Statistics.

§ 6. Density.

1. *General.*—From certain aspects, population may be less significant in respect of its absolute amount than in its relation to the area of the country. Australia, with an area of 2,971,081 square miles and an estimated population at 31st December, 1960, of 10,398,170, excluding full-blood aboriginals, has a density of only 3.50 persons to the square mile, and is, therefore, the most sparsely populated of the civilized countries of the world. For the other continents and sub-continents, the densities in 1958 were

approximately as follows:—Europe (excluding U.S.S.R.), 221; Asia (excluding U.S.S.R.), 152; U.S.S.R. 24 (1959); Africa, 20; Northern and Middle America, 41; and South America 20. The population of Australia has thus about one-sixth of the density of that of South America and of Africa; about one-seventh of that of U.S.S.R.; about one-twelfth of that of Northern and Middle America; about one-forty-fifth of that of Asia (excluding U.S.S.R.), and about one-sixty-sixth of that of Europe (excluding U.S.S.R.).

On account of the large area of Australia and the unsuitability for settlement of much of the country, the density of population must necessarily increase slowly. In Australia as a whole, the figure has increased from 1.29 per square mile in 1901 to 3.50 in 1960. The rise in density from 1901 to 1960 in each State and Territory was:—New South Wales 4.45 to 12.52, Victoria 13.77 to 33.29, Queensland 0.76 to 2.20, South Australia 0.95 to 2.52, Western Australia 0.20 to 0.76, Tasmania 6.68 to 13.72, Northern Territory 0.01 to 0.04 and Australian Capital Territory 2.05 (in 1911) to 58.86. When comparing the density of population of the several States, consideration should be given to the average annual rainfall distribution in each State as an indication of the climatic influence upon probable population numbers. The proportion of the area of Australia receiving less than 10 inches of rainfall is 38 per cent.; that of the various States is:—New South Wales, 20 per cent.; Victoria, nil; Queensland, 13 per cent.; South Australia, 83 per cent.; Western Australia, 58 per cent.; and Tasmania, nil.

2. Main Countries of the World.—The number and density of population of the principal countries and continental groupings of the world are shown in the table on pages 331–2, of § 15. International Statistics.

§ 7. General Characteristics.

1. Sex Distribution.—(i) States. The number of males to each hundred females has been adopted as a measure of the “masculinity” of the population. On pages 163–5 of Official Year Book No. 2 a table is included showing the masculinity of the population of each of the States for each year from 1796 to 1907. In issue No. 5, on page 123, the figures in this table for the years 1901 to 1907 were modified in accordance with the results of the 1911 Census.

With the exception of some dislocation arising from the two World Wars, there was a continuous diminution of the masculinity of the population until 1945. This resulted from the increasing proportion of the population in the higher age groups, in which females preponderate owing to their greater longevity, and from the general long-term fall in the birth rate. At the 1947 Census, the numbers of the sexes were practically equal, but there has since been an increase in masculinity owing to the greater number of males as compared with females in net oversea migration which offsets the femininity of natural increase.

The following table shows the masculinity of the population at ten-year intervals from 1900 to 1960 and for each of the years 1956 to 1960:—

POPULATION: MASCULINITY, 1900 TO 1960.
(NUMBER OF MALES PER 100 FEMALES.)

At 31st December—	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	N.T.	A.C.T.	Aust.
1900	111.14	101.23	125.33	101.95	157.54	107.97	753.60	(a)	110.55
1910	109.23	98.71	119.02	103.12	132.90	104.14	486.32	(a)	107.87
1920	104.31	97.38	112.00	99.83	114.55	101.67	270.04	116.70	103.47
1930	103.39	99.14	110.66	100.97	117.17	101.53	263.66	118.69	103.85
1940	100.98	97.85	108.48	98.91	110.38	102.74	240.31	124.62	101.81
1950	100.88	99.27	106.02	101.83	106.07	102.70	188.05	123.33	101.83
1956	100.89	101.85	105.60	103.05	106.43	105.87	144.29	121.76	102.72
1957	100.78	101.53	105.11	102.83	105.83	106.61	134.55	113.81	102.45
1958	100.33	101.37	104.81	102.46	105.51	107.85	126.54	114.81	102.17
1959	100.08	101.41	104.82	102.61	105.09	109.29	125.01	111.98	102.11
1960	100.12	101.48	104.83	102.95	105.34	112.28	120.26	111.51	102.28

(a) Part of New South Wales prior to 1911. (b) The revised figure for 1956, based on the June, 1957, Population Count of Canberra, is 113.19.

(ii) *Comparison with other Countries.* The masculinity of the population in the principal countries of the world is shown in the table on pages 331-2, of § 15. International Statistics.

2. *Age Distribution.*—The age distribution of the population is obtained only at a census, but estimates, based on the census distribution and on births, recorded ages at death and recorded ages of migrants, are made for intercensal years.

Estimates for 30th June, 1959 and 1960, are shown in the following table. Particulars of the age distribution recorded at the 1947 and 1954 Censuses were published in Official Year Book No. 43, page 560.

POPULATION: ESTIMATED AGE DISTRIBUTION(a), AUSTRALIA.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Age last Birthday. (Years.)	30th June, 1959.			30th June, 1960.		
	Males.	Females.	Persons.	Males.	Females.	Persons.
0- 4	547,386	521,697	1,069,083	559,956	532,641	1,092,597
5- 9	514,956	492,874	1,007,830	522,115	499,764	1,021,879
10-14	483,808	460,708	944,516	502,772	478,433	981,205
15-19	371,201	354,814	726,015	394,470	376,304	770,774
20-24	333,080	314,148	647,228	347,068	323,868	670,936
25-29	346,371	315,761	662,132	342,331	312,937	655,268
30-34	393,039	357,978	751,017	392,283	355,305	747,588
35-39	378,970	360,072	739,042	388,023	367,518	755,541
40-44	332,687	324,696	657,383	334,779	326,206	660,985
45-49	324,785	308,655	633,440	333,034	318,744	651,778
50-54	280,007	259,059	539,066	286,647	267,156	553,803
55-59	233,013	228,762	461,775	234,220	225,927	460,147
60-64	174,699	195,729	370,428	184,498	204,479	388,977
65-69	151,656	183,571	335,227	148,703	183,205	331,908
70-74	111,368	138,805	250,173	115,952	145,464	261,416
75-79	62,965	89,240	152,205	64,047	91,061	155,108
80-84	30,213	46,653	76,866	32,116	51,041	83,157
85-89	10,549	18,541	29,090	10,203	17,804	28,007
90-94	2,772	4,917	7,689	3,121	5,588	8,709
95 and over	249	768	1,017	227	732	959
Total	5,083,774	4,977,448	10,061,222	5,196,565	5,084,177	10,280,742

(a) Based on the age distribution at the Census of 30th June, 1954, (adjusted only for "not stated" ages) and on subsequent births, recorded ages at death and recorded ages of migrants.

The next table shows the change which has taken place in the age constitution of the population of Australia since 1871. Up to the 1954 Census, each successive census except that of 1921 had revealed a larger percentage of the population 15 years of age and over than had been recorded at the previous census. In 1954, however, the proportion of this age group dropped sharply to a level (71.5 per cent.) slightly below that of 1933, the proportion under 15 years showing a corresponding increase to 28.5 per cent. of the total population. The proportions at 30th June, 1960, were estimated to be 69.9 per cent. and 30.1 per cent. respectively.

POPULATION: PROPORTIONAL AGE DISTRIBUTION, AUSTRALIA, 1871 TO 1960
(Per cent.)

Census.	Males.				Females.				Persons.			
	Under 15 years.	15 and under 65.	65 and over.	Total	Under 15 years.	15 and under 65.	65 and over.	Total	Under 15 years.	15 and under 65.	65 and over.	Total
1871..	38.84	59.11	2.05	100	46.02	52.60	1.38	100	42.09	56.17	1.74	100
1881..	36.36	60.81	2.83	100	41.86	56.03	2.11	100	38.89	58.61	2.50	100
1891..	34.80	62.01	3.19	100	39.38	58.09	2.53	100	36.92	60.19	2.89	100
1901..	33.89	61.80	4.31	100	36.51	59.88	3.61	100	35.14	60.88	3.98	100
1911..	30.84	64.82	4.34	100	32.52	63.28	4.20	100	31.65	64.08	4.27	100
1921..	31.64	63.88	4.48	100	31.79	63.83	4.38	100	31.71	63.86	4.43	100
1933..	27.53	66.09	6.38	100	27.42	65.99	6.59	100	27.48	66.04	6.48	100
1947..	25.49	67.08	7.43	100	24.62	66.71	8.67	100	25.06	66.89	8.05	100
1954..	28.81	63.82	7.37	100	28.23	62.52	9.25	100	28.52	63.18	8.30	100
1960(a)	30.50	62.30	7.20	100	29.72	60.55	9.73	100	30.11	61.43	8.46	100

(a) Estimate 30th June.

3. Conjugal Condition.—Of the total population of Australia at the 1954 Census, 46.9 per cent. had never married; 47.1 per cent. were married (including 1.4 per cent. married but permanently separated); 5.2 per cent. were widowed; and 0.8 per cent. were divorced. Between 1947 and 1954, the number never married increased by 17.7 per cent.; those married (including permanently separated) by 20.6 per cent.; the widowed by 10.2 per cent.; and the divorced by 31.8 per cent.

From the demographic point of view, the most important change in the conjugal condition of the population of Australia between 1947 and 1954 was the increase of 35.0 per cent. in never married persons under 15 years of age, which more than offset the continued decrease in never married persons aged 15 years and over. This decrease was, however, confined to females, as the number of unmarried males aged 15 years and over increased by 3.6 per cent. between 1947 and 1954. The proportion of married persons continued to increase, and in 1954 comprised 66 per cent. of the population 15 years of age and over who stated their conjugal condition, compared with 62 per cent. in 1947 and 54 per cent. in 1933.

The number of widowed females recorded in Australia in 1954 was 351,102, or more than three times as many as the number of widowed males. This disparity is the result of two influences. The first is the greater longevity of females coupled with the usually younger age at marriage; and the second is that a larger proportion of widowed males remarry.

POPULATION: CONJUGAL CONDITION, AUSTRALIA, 1947 AND 1954,
(EXCLUDING FULL-BLOOD ABORIGINALS.)

Conjugal Condition.	Census, 30th June, 1947.			Census, 30th June, 1954.			Increase, 1947-54.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
Never Married—							
Under 15 years of age ..	967,759	931,294	1,899,053	1,309,660	1,253,674	2,563,334	664,281
15 years of age and over	929,212	748,414	1,677,626	962,491	684,154	1,646,645	-30,981
Total	1,896,971	1,679,708	3,576,679	2,272,151	1,937,828	4,209,979	633,300
Married	1,692,913	1,686,885	3,379,798	2,062,122	2,043,651	4,105,773	725,975
Married but Permanently Separated	58,722	67,890	126,612	57,371	66,228	123,599	-3,013
Widowed	111,680	309,383	421,063	113,064	351,102	464,166	43,103
Divorced	24,952	27,441	52,393	32,389	36,650	69,039	16,646
Not Stated	12,132	10,681	22,813	9,021	4,953	13,974	-8,839
Total	3,797,370	3,781,988	7,579,358	4,546,118	4,440,412	8,986,530	1,407,172

NOTE.—Minus sign (—) denotes decrease.

4. *Birthplace.*—At 30th June, 1954, the Australian-born element of the population of Australia represented 85.7 per cent. as compared with 90.2 per cent. at the 1947 Census. The number of Australian-born increased by 864,893, or 12.7 per cent., between 1947 and 1954, while the oversea-born population increased by 542,279 or 72.9 per cent. The latter resulted mainly from the increase of 503,458 in the number of persons of European birthplace between 1947 and 1954—principally persons born in England (an increase of 96,819); Italy (86,265); Germany (50,855); Poland (50,021); and the Netherlands (49,861).

Although numerically less significant, the number of persons of Asian and African birthplace more than doubled during the intercensal period, but there was little change in the number of persons born elsewhere.

Of persons born outside Australia, 57 per cent. were males and 43 per cent. females.

POPULATION: BIRTHPLACES, AUSTRALIA, 1947 AND 1954.

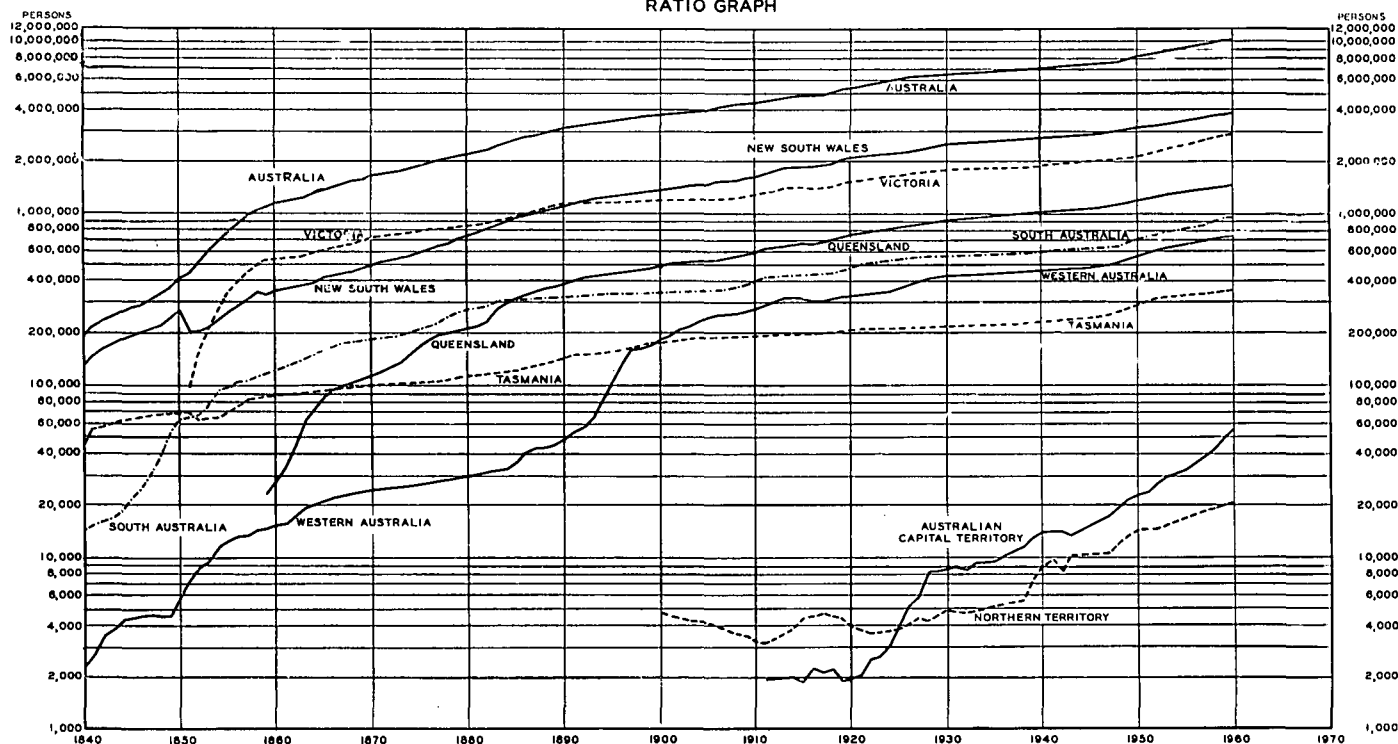
(EXCLUDING FULL-BLOOD ABORIGINALS.)

Birthplace.	Census, 30th June, 1947.			Census, 30th June, 1954.			Increase, 1947-54.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
<i>Australia</i>	3,380,324	3,454,847	6,835,171	3,812,435	3,887,629	7,700,064	864,893
New Zealand	21,890	21,720	43,610	21,723	21,627	43,350	- 260
Other Australasian ..	776	810	1,586	1,065	1,058	2,123	537
Total, Australasia ..	3,402,990	3,477,377	6,880,367	3,835,223	3,910,314	7,745,537	865,170
England	205,330	176,262	381,592	256,699	221,712	478,411	96,819
Wales	6,859	5,005	11,864	8,343	6,144	14,487	2,623
Scotland	55,734	47,264	102,998	66,792	56,842	123,634	20,636
Northern Ireland ..	3,214	2,325	5,539	5,527	3,976	9,503	3,964
Ireland, Republic of ..	2,420	2,244	4,664	3,595	2,397	5,992	1,328
Ireland (undefined) ..	18,309	16,301	34,610	18,054	14,124	32,178	-2,432
Austria	2,368	1,851	4,219	5,582	5,286	10,868	6,649
Czechoslovakia	926	558	1,484	8,515	4,165	12,680	11,196
Estonia	656	446	1,102	3,393	3,156	6,549	5,447
France	1,077	1,138	2,215	2,417	2,282	4,699	2,484
Germany	8,955	5,612	14,567	33,663	31,759	65,422	50,855
Greece	9,115	3,176	12,291	16,794	9,068	25,862	13,571
Hungary	702	525	1,227	9,054	5,548	14,602	13,375
Italy	22,506	11,126	33,632	80,279	39,618	119,897	86,265
Latvia	296	151	447	9,524	7,734	17,258	16,811
Lithuania	169	104	273	5,272	3,152	8,424	8,151
Malta	2,472	766	3,238	12,411	7,577	19,988	16,750
Netherlands	1,577	597	2,174	30,046	21,989	52,035	49,861
Poland	3,672	2,901	6,573	35,652	20,942	56,594	50,021
Ukraine	2,817	2,159	4,976	8,728	6,029	14,757	22,872
U.S.S.R.				6,419	6,672	13,091	
Yugoslavia	4,281	1,585	5,866	15,473	7,383	22,856	16,990
Other European	11,990	4,065	16,055	17,471	7,806	25,277	9,222
Total, Europe	365,445	286,161	651,606	659,703	495,361	1,155,064	503,458
Ceylon, India and Pakistan ..	5,247	2,913	8,160	8,487	6,373	14,860	6,700
China	5,135	1,269	6,404	7,199	3,078	10,277	3,873
Cyprus	544	137	681	4,254	1,519	5,773	5,092
Syria and Lebanon	1,035	851	1,886	2,614	1,552	4,166	2,280
Other Asian	4,129	2,836	6,965	9,717	6,788	16,505	9,540
Total, Asia	16,090	8,006	24,096	32,271	19,310	51,581	27,485
Egypt	412	391	803	4,392	3,758	8,150	7,347
Union of South Africa	3,071	2,795	5,866	3,113	2,858	5,971	105
Other African	494	374	868	930	775	1,705	837
Total, Africa	3,977	3,560	7,537	8,435	7,391	15,826	8,289
Canada, (including New- foundland)	2,339	1,722	4,061	2,571	1,917	4,488	427
United States of America	3,794	2,438	6,232	5,039	3,250	8,289	2,057
Other American	744	593	1,337	938	781	1,719	382
Total, America	6,877	4,753	11,630	8,548	5,948	14,496	2,866
Polynesia	1,526	1,619	3,145	1,628	1,730	3,358	213
At Sea	465	512	977	310	358	668	- 309
Total Born Outside Australia ..	417,046	327,141	744,187	733,683	552,783	1,286,466	542,279
Total	3,797,370	3,781,988	7,579,358	4,546,118	4,440,412	8,986,530	1,407,172

NOTE.—Minus sign (—) denotes decrease.

POPULATION OF AUSTRALIA, 1840 to 1960

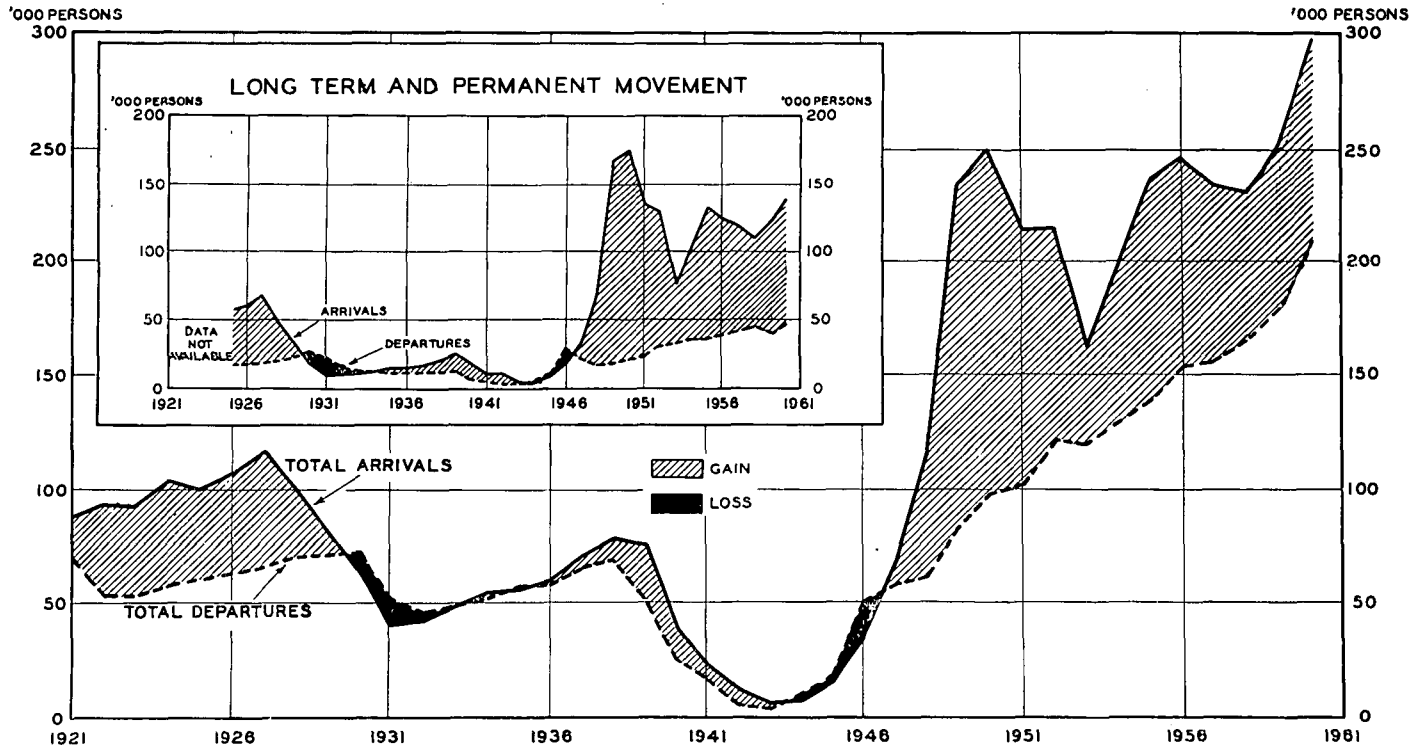
RATIO GRAPH



NOTE - THE VERTICAL SCALE IS LOGARITHMIC, AND THE CURVES RISE AND FALL ACCORDING TO THE RATE OF INCREASE OR DECREASE; ACTUAL NUMBERS ARE INDICATED BY THE SCALE.

OVERSEA ARRIVALS AND DEPARTURES

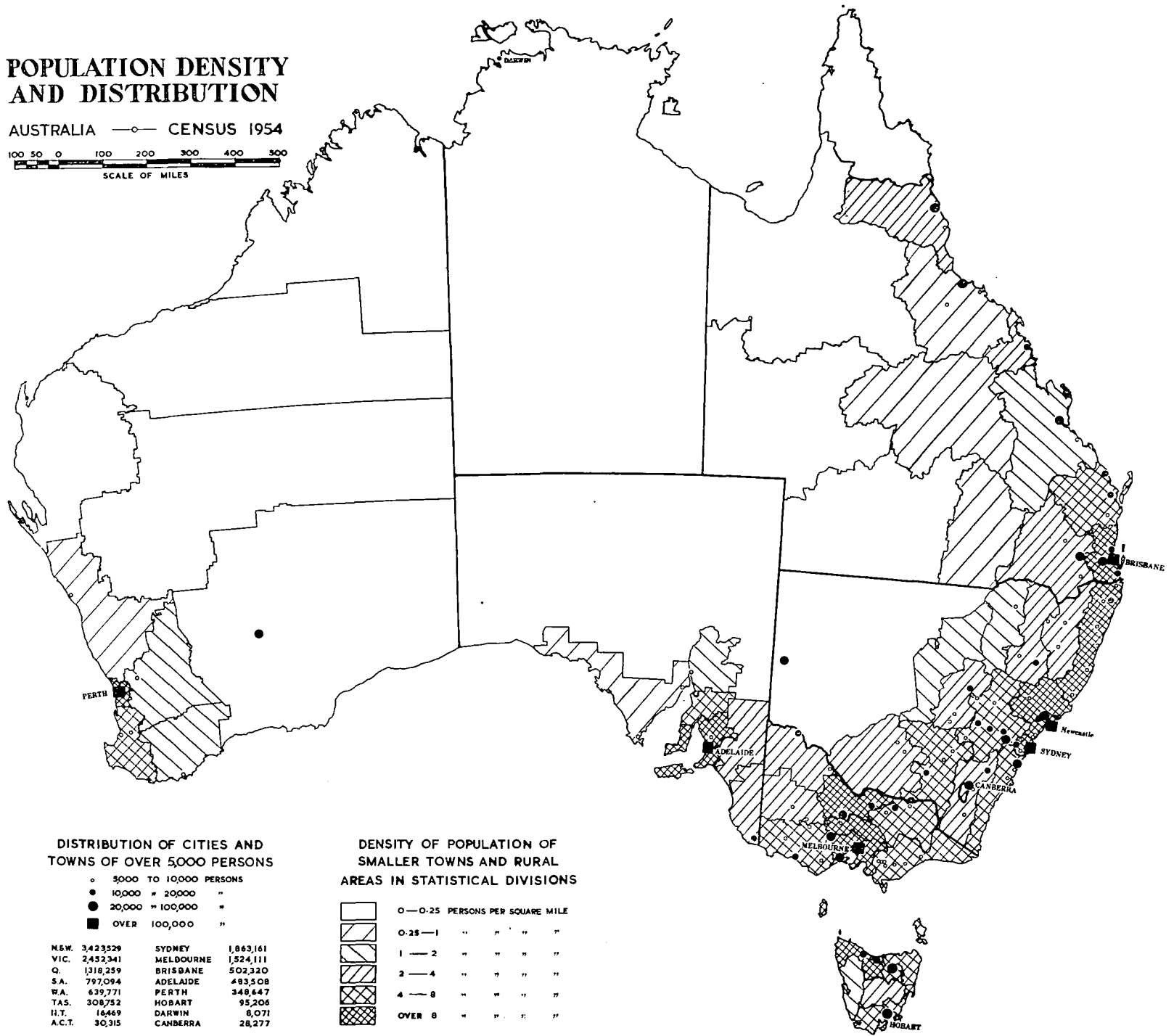
AUSTRALIA, 1921 TO 1960



POPULATION DENSITY AND DISTRIBUTION

AUSTRALIA — CENSUS 1954

100 50 0 100 200 300 400 500
SCALE OF MILES



DISTRIBUTION OF CITIES AND TOWNS OF OVER 5,000 PERSONS

- 5,000 TO 10,000 PERSONS
- 10,000 " 20,000 "
- 20,000 " 100,000 "
- OVER 100,000 "

N.S.W.	3,423,529	SYDNEY	1,843,161
VIC.	2,452,341	MELBOURNE	1,524,111
Q.	1,318,259	BRISBANE	502,320
S.A.	797,094	ADELAIDE	483,508
W.A.	639,771	PERTH	348,647
TAS.	308,752	HOBART	95,206
N.T.	16,469	DARWIN	8,071
A.C.T.	30,315	CANBERRA	28,277

DENSITY OF POPULATION OF SMALLER TOWNS AND RURAL AREAS IN STATISTICAL DIVISIONS

0-0.25 PERSONS PER SQUARE MILE	0-0.25	"	"	"	"
0.25-1	0.25-1	"	"	"	"
1-2	1-2	"	"	"	"
2-4	2-4	"	"	"	"
4-8	4-8	"	"	"	"
8-16	8-16	"	"	"	"
OVER 16	OVER 16	"	"	"	"

5. *Period of Residence in Australia.*—This table classifies the immigrant population of Australia according to period of residence in Australia, and reflects the greatly increased rate of immigration since 1947. It shows that in 1954, of persons born outside Australia who stated their period of residence, 40.9 per cent. had resided in Australia for a period of less than 5 years, 53.9 per cent. for less than 8 years, and 56.2 per cent. for less than 15 years, compared with 5.7, 7.7 and 14.8 per cent. respectively at the previous Census in 1947.

**IMMIGRANT POPULATION: PERIOD OF RESIDENCE, AUSTRALIA,
1947 AND 1954.**

PERSONS BORN OUTSIDE AUSTRALIA.

Period of Residence.	Census, 30th June, 1947.			Census, 30th June, 1954.			Increase. 1947-54.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
Under 1 year	16,660	9,953	26,613	47,430	34,841	82,271	55,658
1 year and under 2 years	4,116	4,953	9,069	32,228	27,096	59,324	50,255
2 years and under 3 years	2,124	1,322	3,446	65,374	39,354	104,728	101,282
3 years and under 4 years	822	462	1,284	71,183	50,367	121,550	120,266
4 years and under 5 years	671	319	990	87,636	62,200	149,836	148,846
Total under 5 years	24,393	17,009	41,402	303,851	213,858	517,709	476,307
5 years and under 6 years	2,217	1,238	3,455	64,618	45,416	110,034	106,579
6 years and under 7 years	2,374	1,827	4,201	21,522	15,424	36,946	32,745
7 years and under 8 years	3,608	3,032	6,640	9,452	7,883	17,335	10,695
8 years and under 9 years	7,966	6,803	14,769	15,677	12,526	28,203	- 23,278
9 years and under 10 years	6,270	4,166	10,436				
10 years and under 15 years	13,507	12,769	26,276				
Total 5 years and under 15 years ..	35,942	29,835	65,777	111,269	81,249	192,518	126,741
15 years and over ..	345,039	270,399	615,438	306,288	247,819	554,107	- 61,331
Not Stated	11,672	9,898	21,570	12,275	9,857	22,132	562
Born outside Australia ..	417,046	327,141	744,187	733,683	552,783	1,286,466	542,279
Born in Australia(a) ..	3,380,324	3,454,847	6,835,171	3,812,435	3,887,629	7,700,064	864,893
Total	3,797,370	3,781,988	7,579,358	4,546,118	4,440,412	8,986,530	1,407,172

(a) Excludes full-blood aboriginals.

NOTE.—Minus sign (—) denotes decrease.

6. *Nationality.*—At 30th June, 1954, 8,582,251 persons, or 95.5 per cent. of the Australian population, were of British nationality (consisting of 85.7 per cent. born in Australia and 9.8 per cent. born outside), compared with 99.5 per cent. in 1947 (90.2 per cent. Australian-born and 9.3 per cent. born outside Australia). Of the overseas-born population in 1954, 68.6 per cent. were British subjects, compared with 94.8 per cent. in 1947. The most numerous foreign nationals in Australia at 30th June, 1954, were:—Italian, 90,018 persons; Dutch, 53,458; Polish, 49,746; German, 31,448; Yugoslav, 18,124; Greek, 17,843; Ukrainian, 17,239; and Latvian, 17,225.

POPULATION: NATIONALITY (i.e., ALLEGIANCE), AUSTRALIA, 1947 AND 1954.
(EXCLUDING FULL-BLOOD ABORIGINALS.)

Nationality.	Census, 30th June, 1947.			Census, 30th June, 1954.			Increase, 1947-54.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
British(a)—							
Born in Australia ..	3,380,324	3,454,847	6,835,171	3,812,435	3,887,629	7,700,064	864,893
Born outside Australia ..	387,767	317,767	705,534	484,798	397,389	882,187	176,653
<i>Total, British</i> ..	<i>3,768,091</i>	<i>3,772,614</i>	<i>7,540,705</i>	<i>4,297,233</i>	<i>4,285,018</i>	<i>8,582,251</i>	<i>1,041,546</i>
Foreign—							
American (U.S.) ..	2,474	877	3,351	3,761	1,958	5,719	2,368
Austrian ..	376	280	656	1,859	1,696	3,555	2,899
Chinese ..	4,329	529	4,858	5,010	931	5,941	1,083
Czechoslovak ..	239	135	374	4,958	2,280	7,238	6,864
Dutch ..	1,408	593	2,001	30,518	22,940	53,458	51,457
Estonian ..	159	96	255	2,720	2,581	5,301	5,046
French ..	770	551	1,321	1,908	1,624	3,532	2,211
German ..	1,669	692	2,361	17,262	14,186	31,448	29,087
Greek ..	3,720	784	4,504	11,415	6,428	17,843	13,339
Hungarian ..	154	173	327	5,910	3,746	9,656	9,329
Italian ..	5,473	1,699	7,172	61,673	28,345	90,018	82,846
Latvian ..	36	25	61	9,161	8,064	17,225	17,164
Lithuanian ..	23	15	38	4,854	3,248	8,102	8,064
Norwegian ..	685	60	745	1,414	284	1,698	953
Polish ..	839	721	1,560	29,524	20,222	49,746	48,186
Romanian ..	39	31	70	871	519	1,390	1,320
Russian ..	333	210	543	2,174	2,077	4,251	3,708
Swiss ..	321	127	448	927	696	1,623	1,175
Ukrainian ..				9,871	7,368	17,239	17,239
Yugoslav ..	1,753	343	2,096	11,633	6,491	18,124	16,028
Other Foreign ..	3,292	672	3,964	8,880	3,343	12,223	8,259
Stateless ..	1,187	761	1,948	22,582	16,367	38,949	37,001
<i>Total, Foreign</i> ..	<i>29,279</i>	<i>9,374</i>	<i>38,653</i>	<i>248,885</i>	<i>155,394</i>	<i>404,279</i>	<i>365,626</i>
Total ..	3,797,370	3,781,988	7,579,358	4,546,118	4,440,412	8,986,530	1,407,172

(a) "Irish" nationality is included with "British" nationality for the purpose of this table.

7. Religion.—At the 1921 Census, 92,258 persons in Australia, or 1.7 per cent., gave no reply to this question, but at the Censuses of 1933, 1947 and 1954, when the public was informed that there was no legal obligation to answer this question, 848,948 persons (12.8 per cent.), 824,824 (10.9 per cent.) and 855,819 (9.5 per cent.), respectively, gave no reply. Of males 10.3 per cent., and of females 8.7 per cent., did not state their religion in 1954.

Of those who stated their religion, the greatest numerical increase during the intercensal period between 1947 and 1954 was recorded by Roman Catholic and Catholic combined. This group was followed closely by Church of England, and then Presbyterian, Methodist and Lutheran in that order. Amongst the denominations with the largest numbers of adherents, the greatest proportional increases were recorded by Roman Catholic and Catholic combined, 29.9 per cent.; Presbyterian, 17.0 per cent.; Church of England, 15.3 per cent.; and Methodist, 12.2 per cent. The largest proportional increase was that of the Lutheran denomination, 73.7 per cent.

At the 1954 Census, as at earlier censuses, 99 per cent. of those who stated their religion professed the Christian faith. Between 1947 and 1954, the number who stated they were of non-Christian religion increased by 50 per cent., while those specifically stating they had no religion decreased by 10 per cent.

POPULATION : RELIGION, AUSTRALIA, 1947 AND 1954.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Religion.	Census, 30th June, 1947.			Census, 30th June, 1954.			Increase, 1947-54.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
Christian—							
Baptist	53,197	60,330	113,527	60,048	67,396	127,444	13,917
Brethren	5,807	7,195	13,002	7,511	8,893	16,404	3,402
Catholic, Roman(a) ..	335,241	294,957	630,198	413,719	347,383	761,102	130,904
Catholic(a)	448,959	507,581	956,540	635,398	664,486	1,299,884	343,344
Church of Christ	33,276	38,495	71,771	37,880	42,484	80,364	8,593
Church of England ..	1,480,527	1,476,505	2,957,032	1,709,197	1,699,653	3,408,850	451,818
Congregational	29,364	33,879	63,243	32,508	36,944	69,452	6,209
Greek Orthodox	(b)	(b)	(b)	44,382	30,363	74,745	(b)
Lutheran	34,854	32,037	66,891	60,306	55,872	116,178	49,287
Methodist	425,745	445,680	871,425	478,605	499,328	977,933	106,508
Presbyterian	366,892	376,648	743,540	430,798	439,444	870,242	126,702
Protestant (undefined) ..	36,708	36,562	73,270	48,539	46,877	95,416	22,146
Salvation Army	17,542	20,030	37,572	20,304	22,534	42,838	5,266
Seventh-day Adventist ..	7,453	10,097	17,550	11,166	14,163	25,329	7,779
Other (including Christian undefined) ..	27,492	29,883	57,375	31,957	35,616	67,573	10,198
Total, Christian	3,303,057	3,369,879	6,672,936	4,022,318	4,011,436	8,033,754	1,360,818
Non-Christian—							
Hebrew	16,426	15,593	32,019	24,548	23,888	48,436	16,417
Other	3,736	807	4,543	4,910	1,471	6,381	1,838
Total, Non-Christian ..	20,162	16,400	36,562	29,458	25,359	54,817	18,255
Indefinite	9,838	8,870	18,708	10,038	8,418	18,456	-252
No Religion	18,888	7,440	26,328	16,652	7,032	23,684	-2,644
No Reply	445,425	379,399	824,824	467,652	388,167	855,819	30,995
Total	3,797,370	3,781,988	7,579,358	4,546,118	4,440,412	8,986,530	1,407,172

(a) So described in individual Census Schedules.

(b) Not available.

NOTE.—Minus sign (—) denotes decrease.

8. **Industry.**—In the following table, the male and female populations of Australia are classified according to the industry in which they were usually engaged at the 1954 Census. Persons usually engaged in industry are regarded as being "in the work force," while the remainder of the population, which at the 1954 Census comprised 5,284,508 persons, is classified as not being in the work force. The term "in the work force" includes persons of all ages who are employers, self-employed or working on their own account, wage and salary earners and unpaid helpers engaged in industry. It also includes persons "not at work," i.e., those who stated that they were usually engaged in work, but were not actively seeking a job at the time of the Census by reason of sickness, accident, etc., or because they were on strike, changing jobs or temporarily laid off, etc.; also persons able and willing to work but unable to secure employment, as well as casual and seasonal workers not actually in a job at the time of the Census.

Persons who do not earn their living by doing work for monetary reward, such as children, housewives, full-time students, retired persons, pensioners and permanent inmates of institutions, are regarded as not being in the work force.

About 63 in every 100 of the male population and 19 in every 100 of the female population were in the work force, or, in other words, there were in 1954, 3.4 males to every female in the work force.

Of the total males in the work force, those engaged in Manufacturing represented the largest proportion, namely 28.0 per cent., followed in order by those in Primary Production, 16.1 per cent.; Commerce, 13.6 per cent.; Building and Construction, 11.3 per cent.; Public Authority (n.e.i.) and Professional Activities, 9.1 per cent.; and Transport and Storage, 8.4 per cent.

As with males, females in the work force were engaged mainly in Manufacturing, 26.9 per cent., followed in order by those in Commerce, 22.5 per cent.; Public Authority (n.e.i.) and Professional Activities, 22.1 per cent.; and Amusement, Hotels, Cafés, Personal Service, etc., 14.8 per cent.

**POPULATION CLASSIFIED ACCORDING TO INDUSTRY: AUSTRALIA,
CENSUS, 30th JUNE, 1954.**

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Industry Group and Sub-group.	Males.	Females.	Persons.	
			Number.	Proportion of Total. (Per cent.)
Primary Production—				
Fishing, Hunting and Trapping	10,003	126	10,129	0.11
Agriculture, Mixed Farming	220,218	12,172	232,390	2.59
Grazing	115,162	8,714	123,876	1.38
Dairying	100,553	11,004	111,557	1.24
Forestry	15,279	67	15,346	0.17
Total	461,215	32,083	493,298	5.49
Mining and Quarrying	60,310	1,061	61,371	0.68
Manufacturing—				
Founding, Engineering and Metalworking	229,431	32,305	261,736	2.91
Manufacture, Assembly and Repair of Ships, Vehicles, Parts and Accessories	132,653	6,463	139,116	1.55
Textile and Fibrous Materials (not Dress)	27,601	26,182	53,783	0.60
Clothing and Knitted Goods (including Needleworking)	23,144	73,367	96,511	1.07
Food, Drink and Tobacco	117,088	27,927	145,015	1.61
Sawmilling and Manufacture of Wood Products	53,252	2,136	55,388	0.62
Paper and Paper Products, Printing, Bookbinding and Photography	53,953	18,770	72,723	0.81
Other and Undefined	163,146	39,913	203,059	2.26
Total	800,268	227,063	1,027,331	11.43
Electricity, Gas, Water and Sanitary Services (Production, Supply and Maintenance)	69,554	4,096	73,650	0.82
Building and Construction—				
Construction and Repair of Buildings	196,205	2,452	198,657	2.21
Construction Works (other than Buildings)	125,624	1,341	126,965	1.41
Total	321,829	3,793	325,622	3.62
Transport and Storage—				
Road Transport and Storage	92,990	4,488	97,478	1.08
Shipping and Loading and Discharging Vessels	55,905	2,180	58,085	0.65
Rail and Air Transport	91,691	8,031	99,722	1.11
Total	240,586	14,699	255,285	2.84
Communication	63,802	16,748	80,550	0.90
Finance and Property; Business Services (n.e.i.)	64,366	34,278	98,644	1.10
Commerce	387,468	189,913	577,381	6.43
Public Authority (n.e.i.) and Professional Activities	260,474	186,443	446,917	4.97
Amusement, Hotels, Cafés, Personal Service, etc.	99,003	125,486	224,489	2.50
Other, Inadequately Described or Not Stated	27,745	9,739	37,484	0.42
Persons in the Work Force	2,856,620	845,402	3,702,022	41.20
Persons not in the Work Force	1,689,498	3,595,010	5,284,508	58.80
Total	4,546,118	4,440,412	8,986,530	100.00

9. **Occupational Status.**—The term “occupational status” relates to the capacity in which persons are engaged in the various branches of industry.

While the numbers of employers and of persons self-employed at the 1954 Census showed increases of approximately 13 per cent. and 6 per cent., respectively, as compared with 1947, the number of employees increased by slightly more than 20 per cent., and in 1954 constituted nearly 80 per cent. of the total work force, as compared with 77 per cent. in 1947. Employers and self-employed combined constituted 17.8 per cent. of the work force in 1954 as compared with 19.0 per cent. in 1947.

POPULATION: OCCUPATIONAL STATUS, AUSTRALIA, 1947 AND 1954.
(EXCLUDING FULL-BLOOD ABORIGINALS.)

Occupational Status.	Census, 30th June, 1947.			Census, 30th June, 1954.			Increase, 1947-54.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
<i>In Work Force—</i>							
<i>At Work—</i>							
Employer	196,932	24,357	221,289	220,408	30,028	250,436	29,147
Self-employed	342,650	44,487	387,137	358,746	51,436	410,182	23,045
Employee (on wage or salary)	1,827,072	620,421	2,447,493	2,211,915	737,488	2,949,403	501,910
Helper (not on wage or salary)	24,227	4,498	28,725	18,342	9,866	28,208	- 517
Total at Work	2,390,881	693,763	3,084,644	2,809,411	828,818	3,638,229	553,585
Not at Work(a)	66,009	16,765	82,774	40,913	13,953	54,866	- 27,908
Not Stated	22,379	6,634	29,013	6,296	2,631	8,927	- 20,086
<i>Total in Work Force</i>	<i>2,479,269</i>	<i>717,162</i>	<i>3,196,431</i>	<i>2,856,620</i>	<i>845,402</i>	<i>3,702,022</i>	<i>505,591</i>
<i>Not in Work Force</i>	<i>1,318,101</i>	<i>3,064,826</i>	<i>4,382,927</i>	<i>1,689,498</i>	<i>3,595,010</i>	<i>5,284,508</i>	<i>901,581</i>
Grand Total	3,797,370	3,781,988	7,579,358	4,546,118	4,440,412	8,986,530	1,407,172

(a) Includes persons who were (1) unable to secure employment; (2) temporarily laid off from their jobs; or (3) not actively seeking work at the time of the Census on account of sickness or accident, industrial dispute, resting between jobs or for any other reason.

NOTE.—Minus sign (—) denotes decrease.

10. **Race.**—The term “Race” as used for Census purposes is not synonymous with ethnic group, but is based on geographical rather than ethnological descriptions. The form of inquiry at the 1954 Census was:—“For persons of European Race, wherever born, write ‘European’. For non-Europeans, state the race to which they belong, for example, ‘Aboriginal’, ‘Chinese’, ‘Negro’, ‘Afghan’, etc. If the person is half-caste with one parent of European race, write also ‘H.C.’, for example ‘H.C. Aboriginal’, ‘H.C. Chinese’, etc.” The complementary instruction was:—“In the case of a person both of whose parents are non-European but of different races, state the race of that person’s father (and do *not* add ‘H.C.’).” This form of inquiry and the instruction are identical with those used at the 1947 Census. It follows that, as the essential distinction is between European and non-European races only, those having European blood to the extent of one half have been classed as half-castes of the non-European race.

A summary for the 1947 and 1954 Censuses is shown in the following table.

POPULATION: RACE, AUSTRALIA, 1947 AND 1954.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Race.	Census, 30th June, 1947.			Census, 30th June, 1954.			Increase. 1947-54.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
Full-blood— European	3,765,238	3,758,891	7,524,129	4,508,795	4,412,896	8,921,691	1,397,562
Non-European—							
Arab	100	38	138	197	65	262	124
Chinese	6,594	2,550	9,144	9,150	3,728	12,878	3,734
Cingalese	97	53	150	196	72	268	118
Filipino	133	102	235	127	100	227	— 8
Indian(a)	2,278	202	2,480	1,892	317	2,209	—271
Japanese	108	49	157	247	292	539	382
Javanese, Indonesian, Koepanger	84	23	107	311	36	347	240
Malay	425	155	580	534	251	785	205
Pacific Islander (n.e.i.) ^b	2,840	2,492	5,332	1,070	814	1,884	805
Torres Strait Islander				2,043	2,210	4,253	
Siamese, Thaiander ..	15	12	27	163	60	223	196
Syrian, Lebanese ..	888	787	1,675	1,374	916	2,290	615
Asiatic (n.e.i.) ..	1,045	425	1,470	848	221	1,069	—149
Other and Indefinite ..				180	72	252	
Total, Non-European							
Full-blood	14,607	6,888	21,495	18,332	9,154	27,486	5,991
Half-caste—							
Arab	6	2	8	16	11	27	19
Australian Aboriginal ..	14,026	13,153	27,179	15,849	15,510	31,359	4,180
Chinese	1,599	1,351	2,950	1,404	1,276	2,680	—270
Cingalese	51	53	104	58	65	123	19
Filipino	111	103	214	101	100	201	— 13
Indian(a)	235	183	418	259	179	438	20
Japanese	91	87	178	114	132	246	68
Javanese, Indonesian, Koepanger	32	24	56	11	21	32	— 24
Malay	196	198	394	214	235	449	55
Pacific Islander (n.e.i.) ^(b)	359	353	712	371	366	737	134
Torres Strait Islander ..				60	49	109	
Siamese, Thaiander ..	2	6	8	25	18	43	35
Syrian, Lebanese ..	111	112	223	103	96	199	— 24
Asiatic (n.e.i.) ..	706	584	1,290	140	102	242	—580
Other and Indefinite ..				266	202	468	
Total, Half-caste ..	17,525	16,209	33,734	18,991	18,362	37,353	3,619
Total, Non-European Full-blood and Half-caste ..	32,132	23,097	55,229	37,323	27,516	64,839	9,610
Grand Total ..	3,797,370	3,781,988	7,579,358	4,546,118	4,440,412	8,986,530	1,407,172

(a) Native of India or Pakistan.
and South Sea Islander, so described.

(b) Includes Fijian, Maori, Papuan, Pacific Islander, Polynesian

NOTE.—Minus sign (—) denotes decrease.

11. Other General Characteristics.—Questions asked at the 1933 Census regarding orphanhood, and the ability to read and write a foreign language (of persons who could not read and write English), were not asked on the schedules of the 1947 and 1954 Censuses and the question on dependent children asked at the 1947 Census was not asked in 1954. The latest data published in respect of the first two questions appear on pages 482 and 487 of Official Year Book No. 36, and in respect of dependent children on page 326 of Official Year Book No. 41.

§ 8. Oversea Migration.

1. Oversea Migration during the Present Century.—Earlier issues of the Official Year Book contain, in summary form, tables showing the increase of population by net migration from 1861 to the latest date, while information for individual years from 1881 is published in the annual bulletin, *Demography*. The following table shows, for Australia, arrivals and departures and net migration since 1936. A graph showing arrivals and departures from 1921 to 1960 appears on page 308.

OVERSEA MIGRATION: AUSTRALIA.

Period.	Arrivals.			Departures.			Excess of Arrivals over Departures.		
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.
1936-40(a)	161,774	159,538	321,312	140,901	137,283	278,184	20,873	22,255	43,128
1941-45(a)	35,422	28,503	63,925	30,097	26,019	56,116	5,325	2,484	7,809
1946-50(a)	398,507	303,413	701,920	180,779	168,057	348,836	217,728	135,356	353,084
1951-55	581,300	446,566	1,027,866	340,819	273,223	614,042	240,481	173,343	413,824
1956-60.	695,445	568,652	1,264,097	481,235	377,840	859,075	214,210	190,812	405,022
1956 ..	141,408	106,040	247,448	87,013	66,437	153,450	54,395	39,603	93,998
1957 ..	123,487	109,841	233,328	87,081	67,515	154,596	36,406	42,326	78,732
1958 ..	121,030	109,234	230,264	91,367	73,531	164,898	29,663	35,703	65,366
1959 ..	139,941	113,955	253,896	98,917	78,188	177,105	41,024	35,767	76,791
1960 ..	169,579	129,582	299,161	116,857	92,169	209,026	52,722	37,413	90,135

(a) Excludes movements of defence personnel from September, 1939 to June, 1947.

As the encouragement of immigration by governmental assistance has been a feature of Australian immigration policy, a clearer indication of the significance of migration movements is obtained when "assisted" and "unassisted" movements are distinguished. This was shown broadly, for the period 1901-1952, in Official Year Book No. 40, page 361, and has been continued in the following table for the period 1936 to 1960.

"ASSISTED" AND "UNASSISTED" MIGRATION: AUSTRALIA.

Period.				Arrivals.			Departures.	Excess of "Un- assisted" Arrivals over All Departures.
				Nominated and Selected ("Assisted").	Other ("Un- assisted").	Total.		
1936-40(a)	..	..	3,828	317,484	321,312	278,184	39,300
1941-45(a)	..	..	..	63,925	63,925	56,116	7,809
1946-50(a)	..	..	273,195	428,725	701,920	348,836	79,889
1951-55	..	..	275,241	752,625	1,027,866	614,042	138,583
1956-60	..	..	305,517	958,580	1,264,097	859,075	99,505
1956	..	..	54,957	192,491	247,448	153,450	39,041
1957	..	..	62,361	170,967	233,328	154,596	16,371
1958	..	..	55,799	174,465	230,264	164,898	9,567
1959	..	..	64,146	189,750	253,896	177,105	12,645
1960	..	..	68,254	230,907	299,161	209,026	21,881

(a) Excludes movements of defence personnel from September, 1939, to June, 1947.

It is not possible in the statistics of departures to distinguish the return movement of persons who came to Australia as "assisted" migrants from that of "unassisted" migrants. Consequently, the separate net migration of "assisted" and "non-assisted" persons cannot be ascertained. Nevertheless, the basis on which the above table has been compiled is sufficient to throw into relief the major trends in Australian migration statistics in the period reviewed. (See also § 9. Assisted Migration into Australia, p. 320.)

2. **Classification of Arrivals and Departures.**—Since 1st July, 1924, overseas travellers have been classified according to declared intention in regard to residence made at the time of arrival or departure. Certain of the headings previously used in this classification were changed, as from 1957, to ensure more accurate definition and to assist in interpretation of the figures. The figures themselves, however, are exactly comparable with those published in issues of the Official Year Book prior to No. 44.

“Long Term and Permanent Movement” (formerly described as “Permanent Movement”) relates to *persons arriving* who state that they intend to reside in Australia for a period of one year or more; and to *persons departing* who state that they intend to reside abroad for a period of one year or more. A minor modification was made as from 1st January, 1959, as a result of which Australian residents departing overseas for one year or more who stated Australia as their country of intended future residence were included in “Short Term Movement” and were excluded from “Long Term and Permanent Movement” (2,749 persons in 1959.).

“Short Term Movement” (formerly described as “Temporary Movement”) relates to *persons arriving* who state that they intend to reside in Australia for a period of less than one year; and to *persons departing* who state that they intend to reside abroad for a period of less than one year. Since 1st July, 1947, it also includes Australian defence personnel irrespective of intended length of residence. Although considerable in number, the short term movement is of little significance from the point of view of population growth, as it represents principally the movement of people travelling on business or for pleasure.

These definitions are in accordance with international usage and do not purport to represent permanent migration as such. For various reasons, the intentions of travellers are subject to subsequent modification and the classification headings used must therefore be accepted as indicating intention only. The numbers so classified since 1st January, 1936, are as follows:—

ARRIVALS AND DEPARTURES CLASSIFIED ACCORDING TO INTENDED RESIDENCE: AUSTRALIA.

Period.	Arrivals.				Departures.			
	Long Term and Permanent Movement.(a)	Short Term Movement.(a)		Total.	Long Term and Permanent Movement.(a)	Short Term Movement.(a)		Total.
		Australian Residents Returning.	Visitors Arriving.			Australian Residents Departing.	Visitors Departing.	
1936-40 ..	(b)88,712	104,870	127,730	321,312	51,006	94,650	132,528	278,184
1941-45 ..	(b)32,624	11,150	20,151	63,925	22,399	9,163	24,554	56,116
1946-50 ..	457,988	108,736	135,196	701,920	105,968	101,787	141,081	348,836
1951-55 ..	570,090	216,949	240,827	1,027,866	155,509	212,978	245,555	614,042
1956-60 ..	615,767	309,611	338,719	1,264,097	210,807	306,118	342,150	859,075
1956 ..	123,822	57,608	66,018	247,448	37,717	51,400	64,333	153,450
1957 ..	118,695	56,017	58,616	233,328	41,073	53,438	60,085	154,596
1958 ..	109,857	59,065	61,342	230,264	44,978	58,888	61,032	164,898
1959 ..	124,022	61,754	68,120	253,896	40,444	64,631	72,030	177,105
1960 ..	139,371	75,167	84,623	299,161	46,595	77,761	84,670	209,026

(a) For definitions of long term and permanent and short term movement see letterpress above.

(b) Includes evacuees arriving in Australia during the war years as follows:—1936-40, 4,543; 1941-45, 12,586.

3. **Country of Origin or Destination.**—Since 1st January, 1945, the journeys undertaken by passengers have been recorded for Australian overseas migration statistics in two ways: (a) according to country of embarkation or disembarkation and (b) according to country of last or intended future residence. Details are published in the annual bulletin, *Demography*.

4. Nationality.—The principal nationalities for the years 1959 and 1960 are as follows:—

NATIONALITY OF ARRIVALS AND DEPARTURES: AUSTRALIA.

Nationality.	Arrivals.		Departures.		Excess of Arrivals over Departures.	
	1959.	1960.	1959	1960.	1959.	1960.
British(a) ..	173,891	202,027	145,366	172,124	28,525	29,903
American(U.S.) ..	10,162	12,783	9,561	11,729	601	1,054
Austrian ..	2,102	2,328	758	805	1,344	1,523
Chinese ..	1,767	1,722	1,023	865	744	857
Czechoslovak ..	258	150	266	151	-8	-1
Dutch ..	11,168	12,236	4,549	5,251	6,619	6,985
Estonian ..	6	28	11	10	-5	18
French ..	1,857	2,121	1,864	1,998	-7	123
German ..	9,996	13,678	2,831	3,415	7,165	10,263
Greek ..	6,032	9,187	937	956	5,095	8,231
Hungarian ..	335	326	144	162	191	164
Italian ..	15,143	22,123	3,985	4,812	11,158	17,311
Latvian ..	39	25	43	36	-4	-11
Lithuanian ..	13	15	48	58	-35	-43
Polish(b) ..	1,847	1,417	175	187	1,672	1,230
Russian(c) ..	996	606	197	214	799	392
Ukrainian ..	19	17	40	38	-21	-21
Yugoslav ..	1,974	1,929	320	297	1,654	1,632
Stateless (so described) ..	6,923	5,478	307	329	6,616	5,149
Stateless (other(d)) ..	35	288	8	7	27	281
Other ..	9,333	10,677	4,672	5,582	4,661	5,095
Total ..	253,896	299,161	177,105	209,026	76,791	90,135

(a) Irish nationality is included with British for the purpose of this table. (b) Includes "Stateless" who were formerly Polish. (c) Includes "Stateless" who were formerly Russian. (d) Stateless, with former nationality stated but other than Polish or Russian.

NOTE.—Minus sign (—) indicates excess of departures over arrivals.

5. Age Distribution and Conjugal Condition.—A summary of the age distribution and conjugal condition of arrivals and departures during 1960 is as follows:—

AGE DISTRIBUTION AND CONJUGAL CONDITION OF ARRIVALS AND DEPARTURES, AUSTRALIA, 1960.

Age Group (Years).	Arrivals.			Departures.			Excess of Arrivals over Departures.		
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.
AGE DISTRIBUTION.									
0-14 ..	24,974	23,060	48,034	12,474	12,292	24,766	12,500	10,768	23,268
15-44 ..	101,527	66,931	168,458	64,166	44,037	108,203	37,361	22,894	60,255
45-64 ..	34,297	30,005	64,302	31,837	27,069	58,906	2,460	2,936	5,396
65 and over ..	8,781	9,586	18,367	8,380	8,771	17,151	401	815	1,216
Total ..	169,579	129,582	299,161	116,857	92,169	209,026	52,722	37,413	90,135
CONJUGAL CONDITION.									
Never Married—									
Under 15 ..	24,974	23,060	48,034	12,474	12,292	24,766	12,500	10,768	23,268
15 and over ..	57,665	33,623	91,288	33,264	23,799	57,063	24,401	9,824	34,225
Married ..	82,879	61,609	144,488	67,286	45,863	113,149	15,593	15,746	31,339
Widowed ..	2,817	9,763	12,580	2,749	8,964	11,713	68	799	867
Divorced ..	1,244	1,527	2,771	1,084	1,251	2,335	160	276	436
Total ..	169,579	129,582	299,161	116,857	92,169	209,026	52,722	37,413	90,135

6. **Occupation.**—A summary of the main occupational groupings of arrivals and departures classified to long-term and permanent movement (*see* para. 2, p. 318) during 1960 is as follows:—

LONG TERM AND PERMANENT MOVEMENT: OCCUPATION OF OVERSEAS ARRIVALS AND DEPARTURES, AUSTRALIA, 1960.

Occupation Group.	Arrivals.	Departures.	Excess of Arrivals over Departures.
Rural, Fishing and Hunting ..	4,833	746	4,087
Professional and Semi-professional ..	6,618	4,712	1,906
Administrative	1,609	1,002	607
Commercial and Clerical ..	10,656	6,528	4,128
Domestic and Protective Service ..	8,337	1,829	6,508
Craftsmen	18,522	4,900	13,622
Operatives	9,514	2,261	7,253
Labourers	9,254	2,352	6,902
Indefinite or not stated ..	5,498	667	4,831
Persons not gainfully occupied—			
Children and Students ..	38,588	11,540	27,048
Other	25,942	10,058	15,884
Total	139,371	46,595	92,776

§ 9. Assisted Migration into Australia.

1. **Joint Commonwealth and States Scheme.**—Details of the joint scheme of assisted immigration arrived at by agreement between the Commonwealth and State Governments, which operated from 1920 to 1939, were published in earlier issues of the Official Year Book (*see* No. 38, p. 576). After the outbreak of hostilities in 1939, it was decided to discontinue the grant of assisted passages for the duration of the War.

2. **United Kingdom Free and Assisted Passage Agreements, March, 1946.**—(i) *General.* Resumption of migration was the subject of negotiations between the Commonwealth and United Kingdom Governments towards the end of 1945 and two agreements were signed in March, 1946. These agreements, which came into operation on 31st March, 1947, provided for free and assisted passages to be granted to British residents desirous of settling in Australia. The Free Passage Agreement was terminated on 28th February, 1955. From 1st April, 1949, the Assisted Passage Agreement continued in operation under renewal from time to time and has again been renewed as from 1st April, 1957.

(ii) *Assisted Passages.* Under the existing financial arrangements, the United Kingdom Government's contribution towards the Assisted Passage Scheme is agreed upon when the Agreement is extended, and for the five years from 1st April, 1957, is fixed at a maximum amount of £150,000 sterling a year.

The Assisted Passage Agreement covers five main groups of migrants (and their families), namely, personal nominees, group nominees, Commonwealth nominees, "Bring out a Briton" campaign families, and unnominated migrants. *Personal nominees* are migrants sponsored by residents of Australia able to provide suitable accommodation for them (any adult resident of Australia may nominate friends or relatives in the United Kingdom who are eligible to be considered for assisted passages under this agreement). *Group nominees* are recruited on a trade-qualification basis to meet applications lodged by employers and State Governments, who guarantee to provide employment and accommodation for those selected; *Commonwealth nominees* comprise workers selected against known and assessed employment demands in Australia. Migrants in this group can live in hostels established by the Commonwealth Government for up to two years while they are seeking to obtain private accommodation. The Commonwealth nominee scheme was introduced in 1950 in order to reinforce the personal and group nomination schemes. "Bring out a Briton" campaign families are selected to fill employment and accommodation vacancies located by special voluntary committees formed by community effort to stimulate the flow of British migrants who are otherwise unable to obtain sponsorship. *Unnominated migrants* may also be granted assisted passages, even though they are unable to arrange personal nominations and are not occupationally qualified for approval under other existing assisted passage selection schemes. Families must possess a minimum of £500 sterling for transfer to Australia and must be prepared to make their own accommodation arrangements after arrival; these are known as "Nest-Egg" migrants. Single persons must possess £25 sterling, and married couples without children £50 sterling. Temporary accommodation if required is provided by the Commonwealth Government.

Although the Commonwealth is not generally prepared to accept single persons or married persons without children if they have reached their forty-sixth birthday before the date of sailing, the parents or close relatives of intending migrants or of persons established in Australia may, if otherwise acceptable under the scheme, be granted passages irrespective of age. Each migrant of 19 years of age and over is required to contribute £10 sterling towards the cost of his or her passage, while persons under 19 years travel free. Apart from this contribution and that made annually by the United Kingdom Government, the cost of the passages is borne by the Commonwealth Government.

(iii) *Number of Arrivals.* The numbers of British migrants who came to Australia under the Free and Assisted Passage Agreement during the years 1947 to 1960 are given in the following table:—

UNITED KINGDOM FREE AND ASSISTED PASSAGE AGREEMENT: NUMBER OF MIGRANTS.(a)

Period.	N.S.W.	Vic.	Qld.	S. Aust.	W. Aust.	Tas.	A.C.T.	Commonwealth Nominations.	Total.
1947-53 ..	45,646	52,947	23,011	13,479	18,570	6,727	2,468	27,739	190,587
1954 ..	3,046	3,199	1,872	1,406	2,067	425	97	6,605	18,717
1955 ..	4,743	6,068	2,731	1,756	2,219	672	119	7,389	25,697
1956 ..	4,231	5,516	2,471	1,814	2,231	602	189	7,082	24,136
1957 ..	4,994	5,184	3,219	2,197	1,774	749	220	6,665	25,002
1958 ..	5,921	6,392	3,568	3,239	2,400	930	199	9,338	31,987
1959 ..	4,383	5,132	2,460	3,501	1,674	732	223	13,518	31,623
1960 ..	5,804	5,928	2,297	3,311	1,234	775	267	11,220	30,836
Total, 1947-60	78,768	90,366	41,629	30,703	32,169	11,612	3,782	89,556	378,585

(a) Includes child migrants as shown in para. 3 (iii) below.

3. *Child Migration from the United Kingdom.*—(i) *General.* Since the commencement of the assisted passage schemes in 1947, the immigration of unaccompanied children and youths from the United Kingdom has been encouraged under the auspices of approved voluntary organizations. The organizations at present introducing child migrants include the Fairbridge Farm Schools, Dr. Barnardo's Homes, the Big Brother Movements of New South Wales and Tasmania, and the Northcote Children's Emigration Fund. All the principal religious denominations are also participating in the scheme. There are 34 approved Homes in Australia caring for approximately 800 child migrants.

(ii) *Financial Assistance.* The United Kingdom Government contributes 12s. 6d. a week for each child and in addition the respective State Governments contribute amounts varying from 7s. a week in New South Wales to £1 3s. 3d. in Western Australia. The Commonwealth Government pays the normal child endowment of 10s. a week. In addition, the Commonwealth Government and the State Government concerned have contributed towards the capital expenditure on accommodation for child migrants.

(iii) *Number of Arrivals.* From the beginning of 1947 to the end of 1960, a total of 5,842 British children and youths arrived under the sponsorship of voluntary organizations. New South Wales took 3,594, Western Australia 1,293, Victoria 523, and the other three States 432. These children were brought to Australia under the United Kingdom Free and Assisted Passage Scheme and are included in the figures shown in the table above.

4. *Assisted Passage Scheme, Eire.*—In November, 1948, the Commonwealth Government decided to grant limited financial assistance to natural-born citizens of Eire normally resident in the British Isles, and to natural-born British citizens resident in Eire, who wished to emigrate to Australia and who were duly selected. This scheme applied only to prospective settlers and their dependants who were not eligible for assisted passages under the agreement with the United Kingdom Government (*see* para. 2 above). The maximum amount granted towards an adult passage was £30 sterling, with varying amounts for children according to age.

It was not essential for an applicant for a passage to be nominated by a friend or relative in Australia before the question of granting financial assistance was considered. Single men and women who were eligible under the scheme were readily accepted. Families, on the other hand, were accepted only if they could produce evidence of having secured accommodation in Australia, or, in the case of nominated migrants, a guarantee of accommodation by their sponsors. Up to the end of 1959, 3,360 migrants had arrived under this scheme.

The assisted passage scheme for citizens of Eire was cancelled on 31st March, 1959, and as from 1st April, 1959, the General Assisted Passage Scheme (*see* para. 15 below) has been applied to nationals of Eire.

5. Maltese Migration.—On 31st May, 1948, the Commonwealth Government and the Government of Malta entered into an agreement under which both Governments grant financial assistance towards the passage costs of selected Maltese migrants. The Commonwealth contribution is £30 sterling per adult, with proportionate amounts for children, and the Government of Malta contributes an amount at least equal to this sum. This agreement has been extended from time to time. On 13th August, 1957, a new agreement, which was acknowledged to have come into effect as from 1st July, 1956, was signed between the two Governments. This agreement, which was to be of 2 years' duration, was extended to 30th June, 1959, and subsequently to 30th June, 1961.

From its inception until 31st December, 1960, a total of 25,853 Maltese had arrived under this scheme. Up to the end of 1960, 240 Maltese children had been brought out to approved institutions in Australia. These are included in the number shown above.

6. Empire and Allied Ex-Servicemen's Scheme.—On 26th May, 1947, the Commonwealth Government implemented a scheme under which assistance was given to the passage costs of Empire ex-servicemen and their dependants not covered by the Free and Assisted Passage Scheme (*see* para. 2 above) and of ex-servicemen of the U.S.A. Later, eligibility was extended to ex-servicemen and resistance workers of the Netherlands, Norway, France, Belgium and Denmark. The amount of assistance for an adult was £30 sterling and amounts for children varied according to age. The scheme was discontinued as from 30th June, 1955.

During its currency a total of 21,333 migrants came to Australia under the scheme. The majority of these (16,830) were Dutch.

7. Displaced Persons Scheme.—On 21st July, 1947, the Commonwealth Government entered into an agreement with the International Refugee Organization to settle displaced persons in Australia. Although the International Refugee Organization concluded its activities in 1951, the Commonwealth agreed to receive those displaced persons already accepted for migration, but whose passages had still to be arranged. A total of 170,700 persons settled in Australia under this scheme. Since the cessation of the Displaced Persons Scheme, substantial numbers of refugees have migrated to Australia under both assisted and full-fare arrangements (*see* para. 14).

8. Netherlands Migration.—A migration agreement concluded between the Commonwealth and Netherlands Governments in February, 1951, came into operation on 1st April of that year. On 1st August, 1956, the agreement was extended for a period of 5 years with retrospective effect as from 1st April, 1956. This superseded an earlier arrangement in 1946, between the Commonwealth and the Netherlands Emigration Foundation (*see* Official Year Book No. 39, p. 567).

The migrant is required to contribute towards his passage costs in accordance with a formula devised by the Netherlands Government. The balance is met by the Commonwealth and Netherlands Governments and the Intergovernmental Committee for European Migration. The Commonwealth Government's contribution is now equivalent to \$110 a head.

The provision of shipping is the responsibility of the Netherlands Government. The Commonwealth arranges for the reception of migrants and their after-care and assists in the securing of employment. Families who have not obtained private accommodation prior to arrival may be temporarily accommodated in an Immigration Centre. When the breadwinner is placed in employment, he proceeds either to employer-found accommodation or to a Commonwealth Hostel. These arrangements continue until the family can secure its own accommodation, or vacancies enable a family to be united in a hostel.

Up to the end of December, 1960, 59,256 Dutch migrants had settled here under the Netherlands-Australia Migration Agreement.

9. Italian Migration.—On 29th March, 1951, the Commonwealth and Italian Governments entered into a migration agreement effective for a period of 5 years, under which certain selected Italian migrants were assisted to Australia. The agreement came into force on 1st August, 1951.

The agreement was temporarily suspended at the end of 1952, but in March, 1954, provision was made for assisted passages to be granted to certain relatives and fiancées of migrants who had previously settled in Australia under the agreement. On 1st December, 1954, the agreement proper was re-opened and was extended to 31st July, 1959. It has since been further extended, by an exchange of letters, to 31st July, 1961. At present, the Commonwealth contributes the equivalent of \$100 towards the fare of each migrant. The balance of passage costs is contributed by the migrants themselves, the Italian Government and the Intergovernmental Committee for European Migration. Up to 31st December, 1960, arrivals under this agreement totalled 42,469 persons.

10. **Migration from Trieste.**—In 1953, arrangements were made for the migration of refugees from Trieste. These arrangements continued until what was formerly the Free Territory of Trieste became part of the Italian Republic. Since then, migrants from Trieste have proceeded under the Italian Agreement. Altogether, 4,745 Triestians arrived in Australia as assisted migrants up to 30th June, 1955. The Commonwealth made a contribution to passage costs at the same rate as for other European migrants and the balance was made up by contributions from the Intergovernmental Committee for European Migration and the Italian Government.

11. **German Migration.**—On 29th August, 1952, a migration agreement was signed between the Commonwealth Government and the Government of the Federal Republic of Germany. This was somewhat similar to the agreements concluded with the Netherlands and Italy and was effective for a period of 5 years. The agreement was renewed on 27th August, 1958, to be effective from 29th August, 1957. The Commonwealth Government's contribution towards passage costs is the equivalent of \$100 a head. The migrant may be required to pay a small contribution and the balance of passage costs is paid by the Intergovernmental Committee for European Migration. The ICEM payment is derived in part from a lump sum contribution which the Government of the Federal Republic of Germany makes annually to the Committee. Arrivals of German assisted migrants numbered 62,005 to the end of December, 1960.

12. **Austrian Migration.**—Late in 1952, arrangements were made with the Intergovernmental Committee for European Migration for the migration to Australia of a small number of selected rural and other workers and their families from Austria. Later, these arrangements were extended to cover greater numbers and wider categories of migrants. The Commonwealth contributes an amount equivalent to \$100 a head towards the passage costs of Austrian migrants. The Austrian Government, the Intergovernmental Committee for European Migration and the migrants themselves also contribute towards passage costs. Reception arrangements, temporary accommodation, after-care and placement in employment are undertaken by the Commonwealth. Under these arrangements, 15,779 Austrians arrived in Australia up to 31st December, 1960.

13. **Greek Migration.**—An arrangement similar to the Austrian one was made with the Intergovernmental Committee for European Migration late in 1952. The Commonwealth's contribution and the arrangements for reception, accommodation, employment and after-care are the same as for Austrian migrants. Under this arrangement, 27,718 Greek assisted migrants had settled in Australia up to 31st December, 1960.

14. **Refugee Migration.**—Following the cessation of the Displaced Persons Scheme in 1951, Australia has accepted for permanent resettlement under assisted passage arrangements 27,948 refugees of European origin to 31st December, 1960. Included in this figure are 14,034 Hungarians who have been granted asylum in Australia since the uprising in October, 1956. The Commonwealth Government granted a total of £A130,000 for the relief of Hungarian refugees and, in addition, contributed the equivalent of \$100 a head to the passage costs of those refugees who were granted assisted passages.

Australia continues to accept refugees under assisted passage and full-fare arrangements. In recent years, a special assisted passage quota has been established with application mainly in Italy and Austria. In the post-war period to 31st December, 1960, 256,182 refugees arrived as assisted passage or full-fare migrants.

15. **General Assisted Passage Scheme.**—To encourage the migration of persons from the United States of America, Switzerland, Denmark, Norway, Sweden and Finland, the Commonwealth Government on 10th September, 1954, introduced an assisted passage scheme for nationals of these countries. Later, the scheme was extended to cover certain British subjects living in a number of countries other than the United Kingdom and to nationals of Eire, Belgium and France. Up to 31st December, 1958, the Commonwealth made a contribution of £37 10s. sterling per adult and *pro rata* amounts for children according to the fare paid, but this was increased to £57 2s. 10d. sterling (\$160) per adult and *pro rata* for children in respect of migrants approved on and after 1st January, 1959. To the end of December, 1960, 15,528 migrants had arrived in Australia under this scheme.

16. **Summary of Arrivals of Assisted Migrants.**—The following table shows, for the period January, 1947, to December, 1960, the number of assisted migrants who arrived in Australia under the various schemes.

NUMBER OF ARRIVALS UNDER ASSISTED PASSAGE SCHEMES.

Scheme.	1947-56.	1957.	1958.	1959.	1960.	Total 1947-60.
1. BRITISH—						
United Kingdom—						
Personal and Group						
Nominees	207,903	18,276	22,583	17,191	13,658	279,611
Commonwealth						
Nominees	48,815	6,665	9,338	14,398	17,152*	96,368
Others	2,419	61	66	34	26	2,606
<i>Total United Kingdom</i>	<i>259,137</i>	<i>25,002</i>	<i>31,987</i>	<i>31,623</i>	<i>30,836</i>	<i>378,585</i>
Maltese	22,464	467	840	1,070	1,012	25,853
Others	3,443	294	224	60	..	4,021
<i>Total British</i> ..	<i>285,044</i>	<i>25,763</i>	<i>33,051</i>	<i>32,753</i>	<i>31,848</i>	<i>408,459</i>
2. DUTCH—						
Commonwealth Nominees	28,046	5,776	5,787	6,861	7,263	53,733
Others	3,493	645	411	430	544	5,523
<i>Total Dutch</i> ..	<i>31,539</i>	<i>6,421</i>	<i>6,198</i>	<i>7,291</i>	<i>7,807</i>	<i>59,256</i>
3. GERMAN—						
Commonwealth Nominees	30,379	3,817	4,417	8,118	11,740	58,471
Others	2,215	660	350	166	143	3,534
<i>Total German</i> ..	<i>32,594</i>	<i>4,477</i>	<i>4,767</i>	<i>8,284</i>	<i>11,883</i>	<i>62,005</i>
4. AUSTRIAN—						
Commonwealth Nominees	9,526	1,547	1,049	1,576	1,646	15,344
Others	227	65	39	30	74	435
<i>Total Austrian</i> ..	<i>9,753</i>	<i>1,612</i>	<i>1,088</i>	<i>1,606</i>	<i>1,720</i>	<i>15,779</i>
5. GENERAL ASSISTED PASSAGE SCHEME(a)	2,232	2,182	2,686	4,332	4,096	15,528
6. REFUGEES—						
Displaced Persons ..	170,700	..	..	..	..	170,700
Hungarians(b)	331	11,751	1,552	299	101	14,034
Ex-Austria(c)	600	1,816	1,448	1,573	1,245	6,682
Ex-Italy(c)	393	783	917	2,737	2,347	7,177
Ex-Greece(c) .. ..	..	..	..	..	55	55
<i>Total Refugees</i> ..	<i>172,024</i>	<i>14,350</i>	<i>3,917</i>	<i>4,609</i>	<i>3,748</i>	<i>198,648</i>
7. ALLIED EX-SERVICEMEN(d)	21,333	..	..	..	..	21,333
8. POLES FROM UNITED KINGDOM	1,457	..	..	..	..	1,457
9. ITALIANS—						
Commonwealth Nominees	21,747	3,454	1,197	2,165	2,755	31,318
Others	2,654	1,249	939	797	767	6,406
Triestians	4,745	..	..	..	..	4,745
<i>Total Italians</i> ..	<i>29,146</i>	<i>4,703</i>	<i>2,136</i>	<i>2,962</i>	<i>3,522</i>	<i>42,469</i>
10. GREEK—						
Commonwealth Nominees	16,498	1,080	167	889	1,447	20,081
Others	1,773	1,773	1,630	1,251	1,210	7,637
<i>Total Greek</i> ..	<i>18,271</i>	<i>2,853</i>	<i>1,797</i>	<i>2,140</i>	<i>2,657</i>	<i>27,718</i>
11. SPANISH .. ..	..	..	159	169	973	1,301
<i>Total Assisted</i> ..	<i>603,393</i>	<i>62,361</i>	<i>55,799</i>	<i>64,146</i>	<i>68,254</i>	<i>853,953</i>

(a) General Assisted Passage Scheme, mainly Swiss, Danish, Swedish, Norwegian, Finnish, French and U.S. Americans. (b) Hungarians from all countries of refuge, Austria, Italy, Switzerland, etc. (c) Mostly Yugoslavs and Stateless. (d) Mostly Dutch.

NOTE.—(i) All arrivals indicated in this table have obtained some financial assistance from the Australian Government towards payment of their passage money. Transport to Australia for the migrants concerned has been arranged on (1) ships under charter to the Department of Immigration, (2) ships and aircraft under charter to the Intergovernmental Committee for European Migration and (3) normal commercial shipping and airlines.

(ii) The arrivals under these schemes include a small number of nationals of countries other than those referred to, and stateless persons.

From the earliest years of assisted migration to the end of 1960, a total of 1,922,264 assisted migrants arrived in Australia.

* Includes "Bring Out a Briton" arrivals and unnominated persons.

§ 10. The Regulation of Immigration into Australia.

1. *Powers and Legislation of the Commonwealth.*—(i) *Constitutional.* Under section 51 (xxvii.) and (xxviii.) of the Commonwealth Constitution, the Parliament of the Commonwealth is empowered to make laws with respect to immigration, emigration, aliens, and the influx of criminals.

(ii) *Legislation.* Immigration into the Commonwealth is regulated by the Migration Act 1958 which came into force on 1st June, 1959, and repealed the Immigration Act 1901–1949 and Aliens Deportation Act 1948.

Any immigrant entering Australia after the commencement of the Act without having been granted an "entry permit" and without being within an exempted class, is a prohibited immigrant. Exempted persons include diplomatic, consular and trade representatives of other countries and seamen whose ships are in Australian ports. "Immigrant" includes persons entering for temporary stay.

Entry permits are normally granted at ports of entry by means of stamps in travellers' passports or equivalent documents, without any form of application having to be completed. Temporary entry permits are granted to persons who have been authorized to enter for a limited period only. Persons eligible to enter for permanent residence are granted permits of unrestricted validity. Persons who are refused entry permits must be kept on board the ship on which they arrive; otherwise, the shipping company is liable to a fine of £500.

The Act abolishes the "Dictation Test" as a means of excluding or deporting ineligible persons. Other deportation powers which were contained in the repealed legislation were largely re-enacted, though with some revision.

The Act also revises the law relating to the emigration of aborigines and children, repealing the Emigration Act 1910.

The new Act does *not* affect passport or visa requirements for entry to Australia. All persons who, prior to the 1958 Act, had been required before embarkation to obtain visas, or other kinds of provisional authority to proceed to Australia, still have to obtain them. Likewise, persons who have *not* had to produce prior authority to enter Australia, before being given passages to Australia, do *not* have to obtain them solely as a result of the new Act. Persons previously allowed to enter Australia without production of passports—notably British people arriving from New Zealand—are still able to do so.

The Immigration (Guardianship of Children) Act 1946–1952 provides that the Minister for Immigration becomes the legal guardian of every person under the age of 21 years who enters Australia other than in the charge of, or for the purpose of living in the care of, a parent or adult relative. It is primarily administered through the child welfare authorities in each State who, as the Minister's delegates under the Act, supervise the welfare of each "immigrant child".

The Aliens Act 1947–1952 provides that a register of aliens shall be maintained for every State and Territory of the Commonwealth. Unless exempted, aliens 16 years of age and over are required to register with the Department of Immigration and to notify the Department of any change of address, occupation or employment, and of their marriage. The Act also provides that consent must be obtained before an alien may change his surname.

2. *Conditions of Immigration into Australia.*—(i) *Persons of Non-European Race.* In pursuance of established policy, the general practice is not to permit persons of non-European descent to enter Australia for the purpose of settling permanently, but exceptions are made in favour of the spouses and children of Australian citizens and other British subjects resident in Australia, and also for highly qualified and distinguished persons. Special provision exists for the temporary admission of non-Europeans who are bona fide merchants, students, tourists and numerous other categories. They are permitted to enter and remain in Australia under temporary entry permits while they retain their status.

(ii) *Persons of European Race.* Maltese, Cypriots and aliens of European race desiring to settle permanently in Australia are required to obtain authority for admission from the Department of Immigration or an Australian Oversea Post. Their admission under the present policy is subject to their compliance with the Commonwealth's requirements in regard to health, character, freedom from security risk and general suitability as settlers.

(iii) *General Information.* General information as to conditions of entry into Australia may be obtained from the following officers:—

- (a) In Australia—The Secretary, Department of Immigration, Canberra, Australian Capital Territory, and Commonwealth Migration Officers in the capital cities of the various States;
- (b) In Great Britain—the Chief Migration Officer, High Commissioner's Office, Australia House, Strand, London;
- (c) In other British Commonwealth countries—The High Commissioner for Australia;
- (d) In Holland, Italy, Germany, Greece, Austria, Denmark, Switzerland and Hong Kong—the Chief Migration Officer or Migration Officer in the capital city of each of those countries;
- (e) In other countries where Australia is represented—the Secretary, Australian Embassy, Legation or Consulate.

For details of Australian representatives in the British Commonwealth and other countries see the section entitled "Australian Representation Abroad: Oversea Representation in Australia" in Chapter XXX.

3. *Nationality of Persons Arriving.*—For details of the nationality of persons who arrived in Australia during the years 1959 and 1960, see page 319.

§ 11. Passports.

Australian passports are issued, under the Passports Act 1938–1948 and Passport Regulations, to Australian citizens.

Diplomatic passports are issued to persons travelling on official missions of a diplomatic character. Official passports are granted persons travelling on the official business of the Commonwealth or a State Government.

Australian passports are obtainable on application at offices of the Commonwealth Department of Immigration in each State of Australia or from overseas offices of that Department, from any Australian diplomatic or consular mission abroad, or from the office of any Australian Government Trade Commissioner overseas.

Applicants for passports must furnish evidence of their identity and nationality and pay a fee of £1.

Approximately 35,000 Australian passports are issued each year in Australia and abroad.

§ 12. Citizenship and Naturalization.

1. *Commonwealth Legislation.*—The Nationality and Citizenship Act 1948 commenced on Australia Day (26th January), 1949, and repealed all previous Commonwealth legislation on this subject. The most significant effect of the Act was the creation for the first time of the status of "Australian Citizen". In this respect, the Act was complementary to citizenship legislation passed or about to be passed by other countries of the British Commonwealth. All Australian citizens, and the citizens of other countries of the British Commonwealth, are declared to be British subjects. For details of the Act, see Official Year Book No. 42, page 619.

2. **Certificates Granted.**—(i) *Australia.* The following tables show the number of certificates granted during 1959 and the number of persons affected by these certificates. The certificate covers the person being naturalized and his/her children under the Nationality and Citizenship Act 1948–1958.

NATURALIZATION: CERTIFICATES GRANTED, AUSTRALIA, 1959.

PREVIOUS NATIONALITIES OF RECIPIENTS.

Nationality.	No. of Certi- ficates Granted.	Per- sons Affected by Certi- ficates.	Nationality.	No. of Certi- ficates Granted.	Per- sons Affected by Certi- ficates.	Nationality.	No. of Certi- ficates Granted.	Per- sons Affected by Certi- ficates.
Afghan ..	1	1	Egyptian ..	22	27	Polish ..	6,726	8,705
Albanian ..	61	64	Estonian ..	548	619	Portuguese ..	28	40
American (U.S.) ..	62	66	Filipino ..	3	3	Romanian ..	204	246
Argentinian ..	3	3	Finnish ..	52	59	Russian ..	653	758
Australian Pro- tected Person ..	271	409	French ..	144	173	Spanish ..	86	109
Austrian ..	301	342	German ..	2,728	3,345	Swedish ..	41	44
Belgian ..	40	44	Greek ..	1,853	2,212	Swiss ..	118	127
Brazilian ..	2	2	Hungarian ..	992	1,153	Syrian ..	5	6
British Protected Person ..	15	19	Indonesian ..	6	6	Turkish ..	18	22
Bulgarian ..	87	103	Iranian ..	3	3	Ukrainian ..	2,618	3,349
Burmese ..	4	4	Iraqi ..	2	2	Uruguayan ..	2	2
Byelorussian ..	58	73	Israeli ..	195	246	Venezuelan ..	1	1
Chilean ..	1	4	Italian ..	8,877	11,584	Yugoslav ..	2,534	2,953
Chinese ..	313	365	Japanese ..	108	110	Other Asian ..	9	11
Czechoslovak ..	678	778	Jordanian ..	3	6	Stateless ..	571	685
Danish ..	65	73	Latvian ..	1,892	2,176			
Dutch ..	4,592	6,395	Lebanese ..	312	390			
			Lithuanian ..	954	1,090			
			Norwegian ..	72	80			
						Total ..	38,934	49,087

COUNTRIES IN WHICH RECIPIENTS(a) ORDINARILY RESIDED IMMEDIATELY BEFORE ENTERING AUSTRALIA OR EXTERNAL TERRITORIES.

Country.	Certi- ficates Granted.	Country.	Certi- ficates Granted.	Country.	Certi- ficates Granted.	Country.	Certi- ficates Granted.
Afghanistan ..	1	France ..	449	Luxembourg ..	2	Russia ..	37
Albania ..	26	French West Africa ..	9	Malaya ..	15	Saudi Arabia ..	1
Argentina ..	20	Germany ..	15,311	Malta ..	1	Singapore ..	6
Austria ..	1,591	Gilbert Islands ..	2	Mauritius ..	6	Solomon Islands ..	4
Belgian Congo ..	1	Greece ..	1,512	Morocco ..	9	South Africa ..	18
Belgium ..	195	Holland ..	4,297	Nauru ..	5	Spain ..	58
Brazil ..	20	Hong Kong ..	74	New Caledonia ..	12	Sweden ..	94
Bulgaria ..	23	Hungary ..	152	New Guinea ..	303	Switzerland ..	193
Burma ..	5	India ..	30	New Hebrides ..	6	Syria ..	8
Canada ..	25	Indonesia ..	267	New Zealand ..	20	Tanganyika ..	89
Ceylon ..	3	Iran ..	31	Northern Rho- desia ..	7	Thailand ..	2
China ..	610	Iraq ..	3	Norway ..	75	Trieste ..	2
Colombia ..	2	Ireland ..	1	Ocean Island ..	1	Turkey ..	27
Cuba ..	2	Israel ..	291	Pakistan ..	2	Uganda ..	20
Cyprus ..	9	Italy ..	9,815	Paraguay ..	1	Ukraine ..	42
Czechoslovakia ..	141	Japan ..	118	Philippines ..	65	United King- dom ..	424
Denmark ..	129	Jordan ..	2	Poland ..	279	U.S.A. ..	109
Dutch Guiana ..	3	Kenya ..	33	Portugal ..	11	Uruguay ..	2
Egypt ..	609	Korea ..	1	Portuguese Af- rica ..	1	Venezuela ..	6
Eritrea ..	2	Latvia ..	46	Portuguese Ti- mor ..	1	Vietnam ..	2
Estonia ..	28	Lebanon ..	382	Romania ..	34	Yugoslavia ..	577
Ethiopia ..	6	Libya ..	5				
Fiji ..	2	Lithuania ..	27			Total ..	38,934
Finland ..	46						

(a) Excludes children affected by grant of certificates.

(ii) *States.* The number of persons affected by certificates granted in 1959 in respect of residents of the various States and Territories were as follows:—New South Wales, 17,509; Victoria, 14,627; Queensland, 4,088; South Australia, 5,432; Western Australia, 5,745; Tasmania, 765; Northern Territory, 117; Australian Capital Territory, 287; External Territories, 517; Total, 49,087.

§ 13. Population of External Territories.

Ordinances of the individual external territories under the control of Australia provide for a Census of the non-indigenous population to be taken by the Commonwealth Statistician on the day prescribed for the taking of a Census in the Commonwealth of Australia.

The Commonwealth of Australia assumed control of the Cocos (Keeling) Islands on 23rd November, 1958, and of Christmas Island on 1st October, 1958.

The following table shows the population of the Territories of Norfolk Island, Papua, the Trust Territory of New Guinea and the Trust Territory of Nauru at the Census of 30th June, 1954 and as estimated at 30th June, 1960, and the estimated population of Christmas Island and Cocos (Keeling) Islands at 30th June, 1960.

POPULATION: EXTERNAL TERRITORIES.

(EXCLUDING INDIGENOUS POPULATION.)

Territory.	Census, 30th June, 1954.			Estimate, 30th June, 1960.
	Males.	Females.	Persons.	Persons.
Christmas Island .. .. .	..	..	..	2,919
Cocos (Keeling) Islands .. .. .	..	..	..	607
Norfolk Island	478	464	942	1,035
Papua	3,867	2,446	6,313	9,885
Trust Territory of New Guinea	7,201	4,241	11,442	14,979
Trust Territory of Nauru	1,269	376	1,645	2,147

Particulars concerning the indigenous populations of the external territories will be found in Chapter V.—The Territories of Australia.

§ 14. The Aboriginal Population of Australia.

In Official Year Book No. 17, pages 951–61, a brief account was given of the Australian aboriginal population, its origin, its numbers as estimated from time to time, and the steps taken for its protection. On pages 914–6 of Official Year Book No. 22, particulars were shown for each of the States and Territories of Australia at successive periods, while a special article dealing with the estimated number and distribution of the native population at the date of first settlement of the white race in the continent appeared on pages 687–96 of Official Year Book No. 23.

The aborigines are scattered over the whole of the mainland but are mostly in Western Australia, Queensland and the Northern Territory. Particulars of the number in each State and Territory at the Census of 30th June, 1954, are shown in the following table. Full-blood aborigines in employment or living in proximity to settlements were enumerated at the census, while estimates of the total numbers, including those living in the nomadic state, were furnished by the authorities responsible for native welfare. Half-caste aborigines are included in the numbers of the population and are of course enumerated at the census. The figures shown for Queensland are exclusive of Torres Strait Islanders.

ABORIGINAL POPULATION, 30th JUNE, 1954.

State or Territory.	Full-blood.				Half-caste. (Enumerated at the Census.)			Total Full- blood and Half- caste.
	In Employment or Living in Proximity to Settlements.(a)			Esti- mate of Total Num- ber.(b)	Males.	Females.	Persons.	
	Males.	Females.	Persons.					
New South Wales ..	769	634	1,403	a 1,403	5,509	5,301	10,810	12,213
Victoria ..	73	68	141	a 141	618	636	1,254	1,395
Queensland ..	3,921	3,347	7,268	9,579	4,447	4,434	8,881	18,460
South Australia ..	396	344	740	c 2,500	1,279	1,193	2,472	4,972
Western Australia ..	3,540	3,139	6,679	d 10,195	3,024	2,996	6,020	16,215
Tasmania ..					50	43	93	93
Northern Territory ..	5,167	4,964	10,131	c 15,500	823	834	1,657	17,157
Aust. Cap. Territory ..	1		1	a 1	99	73	172	173
Total ..	13,867	12,496	26,363	39,319	15,849	15,510	31,359	70,678

(a) Enumerated at the Census of 30th June, 1954.

(b) Furnished by the native welfare authorities (see text hereunder).

(c) Approximate, see text hereunder.

(d) Revised estimates.

According to the latest information available from native welfare authorities, there appears to have been little real change since 1947 in the total numbers of aborigines in Australia. They appear to have decreased in some States and to have increased in others and especially in the Northern Territory. But exact numbers are not yet known and estimates have recently been revised. Even by Census and special surveys it is difficult to obtain accurate counts of those aborigines who live on the fringe of settlements. Nomadic habits still persist to some extent among "settled" natives and it is still very difficult to obtain reliable estimates of the numbers of aborigines who inhabit extensive districts remote from settlement. These are in an area exceeding one million square miles of hinterland embracing outlying parts of three States and of the Northern Territory.

Under these circumstances, the general Census of Population is not a suitable means of obtaining records of the total number of aborigines in Australia. The only available source of estimates is the administrative records of various welfare authorities supplemented by observations of field officers and others who traverse the remote hinterland.

The estimate of number of full blood aborigines in South Australia shown in the above table is a rough approximation derived from the Annual Report of the Aborigines' Protection Board of that State. The estimate of 10,195 for Western Australia as at 30th June, 1954, comprises 8,195 recorded by the Commissioner of Native Welfare for the settled districts, and his revised estimate of 2,000 "nomad natives beyond the confines of civilization". This latter figure was referred to as follows in the Annual Report of the Commissioner of Native Affairs for 1958-59:—"It would be impossible, of course, to estimate the number of desert natives who are now living beyond the confines of civilization, but it is certain that there cannot be more than approximately 2,000". Previous estimates were reduced from 10,000 to 6,000 in 1948 and to 2,000 in 1959 as the result of fuller information and the Commissioner's Report indicated that the earlier estimates had been greatly exaggerated.

As the result of welfare action taken by the Administration in the Northern Territory, 15,439 aborigines were gazetted as wards under the Welfare Ordinance on 13th May, 1957. On the basis of this number, with adjustments for nomadic and other aborigines, the Administration estimated that there were 15,995 aborigines of full blood in the Northern Territory on 31st December, 1956. For comparative purposes a figure of approximately 15,500 is adopted in the above table as at 30th June, 1954.

§ 15. International Statistics of Population.

1. Introduction.—In previous issues of the Official Year Book, tables showing the population, density, rate of growth, natural increase and masculinity, were shown in the respective sections of this chapter and related in the main to those countries for which reliable figures were readily available. In this issue, these tables have been brought together in this section and the list of countries for which this information is shown has been extended to all countries

which had an estimated population of at least one million persons in 1958, together with Cyprus, Papua and Netherlands New Guinea. The source of these figures is the 1959 *Demographic Yearbook* which is prepared and published by the Statistical Office of the United Nations. The tables now include figures varying in reliability and accuracy, there being considerable variation in the quality of demographic statistics as between countries, but this information has been shown to provide some form of guide as to the magnitude and trend of population movements in overseas countries.

Where the information available to the Statistical Office of the United Nations relates to only part of the population of a country, the population characteristic (e.g., rate of growth), or vital statistic rate (e.g., marriages), has been omitted from the tables and this is indicated by a footnote.

For fuller particulars of the differences in the quality of the statistics and their reliability and for other qualifications, reference should be made to the detailed explanations contained in the *Demographic Yearbook* of the Statistical Office of the United Nations (see particularly Technical Notes on Statistical Tables and footnotes to the tables).

2. Population, Rate of Growth and Density; World, Continents and Regions.—The following table shows for the World, Continents, and Regions, estimated population and density at ten yearly intervals since 1920, and for 1958. The annual rate of increase (per cent.), together with the average annual increase during the period 1950–58, is also shown. It should be noted that the population figures have been adjusted for underenumeration and errors in estimation. In preparing these figures, the Population Branch of the United Nations revises, from time to time, the estimates for previous years as new data become available, for example, from a census. The figures are estimates only, and as such are subject to a substantial margin of error.

POPULATION, DENSITY AND RATE OF INCREASE FOR THE WORLD AND CONTINENTS—SELECTED YEARS.

(Source: United Nations *Demographic Yearbook*, 1959.)

Continent and Region.	Population.							Density (persons per square mile).
	Adjusted estimates of mid-year population (millions).					Annual rate of Increase 1950-58 (per cent.)	Average Annual Increase 1950-58 (millions)	
	1920.	1930.	1940.	1950.	1958.			
World Total	1,810	2,013	2,246	(a)2,494	(a)2,854	1.7	(a)45.0	55
Africa	140	155	172	198	231	1.9	4.1	20
Northern Africa	46	51	57	65	76	2.0	1.4	19
Tropical and Southern Africa	94	104	115	133	155	1.9	2.7	20
America	208	244	277	331	390	2.1	7.4	24
Northern America	117	135	146	168	193	1.7	3.1	23
Middle America	30	34	41	51	63	2.7	1.5	59
South America	61	75	90	112	134	2.3	2.8	20
Asia	966	1,072	1,212	1,376	1,591	1.8	26.9	152
South West Asia	43	47	53	59	72	2.5	1.6	33
South Central Asia	326	362	410	466	536	1.8	8.8	271
South East Asia	110	128	155	172	203	2.1	3.9	117
East Asia	487	535	594	679	780	1.7	12.6	169
Europe	329	356	381	395	420	0.7	3.1	221
Northern and Western Europe	115	122	128	133	140	0.6	0.9	161
Central Europe	112	120	127	128	136	0.8	1.0	347
Southern Europe	102	114	126	134	144	0.9	1.2	224
Oceania	8.8	10.4	11.3	13.2	15.8	2.3	0.3	5
Union of Soviet Socialist Republics	158	176	192	(b)	(b)	(b)	(b)	(b)

(a) Includes allowance for population of the Union of Soviet Socialist Republics. Population at the Census of 15th January, 1959, was 209,000,000.

(b) Not available.

3. Population, Density, Rate of Growth, Natural Increase and Masculinity of Principal Countries.—Certain details of the population of the larger countries within continental groups are shown in the following table. As explained above, reference should be made to the detailed comments contained in the United Nations *Demographic Yearbook*, 1959, regarding geographical units used, boundaries of areas, reliability of estimates, etc.

POPULATION, DENSITY, RATE OF INCREASE, NATURAL INCREASE
AND MASCULINITY—SELECTED COUNTRIES.

(Source: United Nations Demographic Yearbook, 1959.)

Country.	Population Midyear 1958 (Thous- ands).	Density 1958 (Persons per Square Mile).	Annual Rate of Increase 1953-58 (per cent.).	Natural Increase.		Masculinity at Latest Census.	
				Year.	Rate (per One thousand Popula- tion).	Year.	Rate (No. of Males per 100 Females).
Africa—							
Nigeria ..	33,052	97	1.9	..	(a)	1953	95.7
United Arab Republic—							
Egypt ..	24,781	64	2.4	..	(a)	..	(a)
Ethiopia ..	21,600	47	(a)	..	(a)	..	(a)
Union of South Africa ..	14,418	31	1.8	..	(a)	1951	103.1
Belgian Congo ..	13,559	15	2.2	1953	12.7	..	(a)
Sudan ..	11,037	11	(a)	1955	33.2	1956	102.2
Morocco ..	10,330	60	1.8	..	(a)	1952	98.4
Algeria ..	10,265	11	1.8	..	(a)	1954	101.6
Tanganyika ..	8,916	25	1.8	1947	19	1957	92.9
Rhodesia and Nyasaland	7,780	16	2.7	..	(a)	..	(a)
Uganda ..	6,356	68	2.5	1947	17	1959	100.9
Kenya ..	6,351	28	1.7	..	(a)	1948	98.3
Mozambique ..	6,234	21	1.1	..	(a)	1950	91.7
Malagasy Republic ..	5,184	23	2.7	..	(a)	..	(a)
Ghana ..	4,836	53	1.6	..	(a)	1948	102.4
Ruanda-Urundi ..	4,700	225	2.5	1957	34.1	..	(a)
Angola ..	4,508	9	1.1	..	(a)	1950	96.3
Tunisia ..	3,852	80	1.2	1958	27.0	1956	107.2
Upper Volta ..	3,736	35	4.0	..	(a)	..	(a)
Sudanese Republic ..	3,700	8	2.0	..	(a)	..	(a)
Cameroons (French Ad- ministration) ..	3,187	19	0.7	..	(a)	..	(a)
Ivory Coast ..	3,090	25	5.3	..	(a)	..	(a)
Chad ..	2,606	5	2.0	..	(a)	..	(a)
Guinea ..	(b) 2,570	(b) 27	(a)	1954	22	1955	90.8
Niger ..	2,490	5	2.8	..	(a)	..	(a)
Senegal ..	2,300	30	1.8	..	(a)	..	(a)
Sierra Leone ..	2,260	81	2.3	..	(a)	..	(a)
Dahomey ..	1,725	39	1.8	..	(a)	..	(a)
Cameroons (British Ad- ministration) ..	1,591	47	1.8	..	(a)	..	(a)
Somaliland (Italian Ad- ministration) ..	1,330	7	0.9	..	(a)	..	(a)
Liberia ..	(c) 1,250	(c) 29	(a)	..	(a)	..	(a)
Central African Republic	1,161	5	1.2	..	(a)	..	(a)
Libya ..	1,153	2	(d) 1.4	..	(a)	1954	107.6
Togoland ..	1,100	50	1.1	..	(a)	..	(a)
North America—							
United States of America (including Hawaii) ..	174,782	48	1.7	1959	14.7	1950	98.7
Mexico ..	32,348	43	2.9	1959	35.4	1950	97.0
Canada ..	17,048	4	2.8	1959	19.8	1956	102.8
Cuba ..	6,466	15	1.9	..	(a)	1953	105.0
Guatemala ..	3,546	8	3.0	1958	27.4	1950	102.2
Haiti ..	3,424	320	1.2	..	(a)	1950	94.5
West Indies ..	3,128	391	2.2	1956	27.1	..	(a)
Dominican Republic ..	2,797	149	3.5	..	(a)	1950	100.5
El Salvador ..	2,434	315	3.5	1959	33.4	1950	98.0
Puerto Rico ..	2,321	676	1.0	1959	24.8	1950	101.0
Honduras ..	1,828	42	3.3	..	(a)	1950	100.5
Nicaragua ..	1,378	24	3.4	..	(a)	1950	97.0
Costa Rica ..	1,076	55	4.0	1958	29.7	1950	99.7
South America—							
Brazil ..	62,725	19	2.4	1950	22.4	1950	99.3
Argentina ..	20,248	19	1.9	1959	14.6	1947	105.1
Colombia ..	13,522	31	2.2	..	(a)	1951	98.9
Peru ..	10,213	21	2.5	..	(a)	1940	97.7
Chile ..	7,298	25	2.5	1958	23.4	1952	96.4
Venezuela ..	6,320	18	3.0	1958	35.3	1950	102.8
Ecuador ..	4,048	39	2.9	..	(a)	1950	99.2
Bolivia ..	3,369	8	1.4	..	(a)	1950	96.2
Uruguay ..	2,700	37	1.3	1956	4.4	..	(a)
Paraguay ..	1,677	11	2.3	..	(a)	1950	95.5
Asia—							
China (Mainland) ..	669,000	178	2.8	1957	23	1953	107.6
India ..	397,390	315	1.3	1958	19.7	1951	105.6
Japan ..	91,760	643	1.1	1958	10.5	1955	96.6
Indonesia ..	87,300	152	1.9	1950-54	20	..	(a)
Pakistan ..	85,635	235	1.4	..	(a)	1951	112.8

NOTE.—See next page for footnotes.

POPULATION, DENSITY, RATE OF INCREASE, NATURAL INCREASE
AND MASCULINITY—SELECTED COUNTRIES—*continued*.

Country.	Population Midyear 1958 (Thous- ands).	Density 1958 (Persons per Square Mile).	Annual Rate of Increase 1953-58 (per cent.).	Natural Increase.		Masculinity at Latest Census.	
				Year.	Rate (per One thousand Popula- tion).	Year.	Rate (No. of Males per 100 Females).
<i>Asia—continued.</i>							
Philippines	24,010	208	2.5	..	(a)	1958	98.9
Turkey (Asia)	23,804	83	(a)	..	(a)	..	(a)
Korea, Republic of ..	22,505	601	1.0	..	(a)	1955	100.1
Thailand	21,474	108	1.9	..	(a)	..	(a)
Burma	20,255	77	1.0	..	(a)	..	(a)
Iran	19,677	31	2.4	..	(a)	1956	103.6
Viet-Nam, North	15,700	262	(a)	..	(a)	..	(a)
Afghanistan	13,000	52	(a)	..	(a)	..	(a)
Viet-Nam, Republic of ..	12,900	196	(a)	..	(a)	..	(a)
China (Taiwan)	9,851	709	3.6	1958	34.1	1956	114.9
Ceylon	9,388	371	2.5	..	(a)	1953	111.5
Nepal	8,910	164	1.5	1952-54	15	1954	96.8
Korea, North	8,000	167	(a)	..	(a)	..	(a)
Iraq	6,590	38	2.6	..	(a)	1957	100.7
Malaya, Federation of ..	6,515	129	2.7	1958	32.2	1957	106.5
Saudi Arabia	(c) 6,036	(c) 10	(a)	..	(a)	..	(a)
Cambodia	4,740	71	(a)	1958	21.7	1959	99.8
Yemen	(e) 4,500	(e) 60	(a)	..	(a)	..	(a)
United Arab Republic—							
Syria	4,283	60	3.9	..	(a)	..	(a)
Hong Kong	2,748	7,028	4.1	1959	29.5	..	(a)
Israel (Jewish population)	1,997	250	3.9	1959	18.5	..	(a)
Laos	1,690	18	3.2	..	(a)	..	(a)
Jordan	1,580	42	3.0	..	(a)	1952	103.2
Lebanon	1,550	386	2.8	..	(a)	..	(a)
Singapore	1,515	6,763	4.9	1959	34.0	1957	111.7
Mongolian People's Re- public	1,040	2	1.1	..	(a)	..	(a)
Netherlands New Guinea	700	4	(a)	..	(a)	..	(a)
Cyprus	549	154	1.7	1958	19.8	..	(a)
<i>Europe—</i>							
Germany, Federal Re- public of	52,150	545	1.2	1959	6.8	1956	88.3
United Kingdom of Great Britain and Northern Ireland	51,870	551	0.4	1958	5.1	1951	92.4
Italy	48,735	419	0.5	1959	8.5	1951	94.9
France	44,584	209	0.9	1959	7.1	1954	92.2
Spain	29,662	153	0.8	1958	13.2	1950	92.8
Poland	28,783	239	1.9	1958	17.8	1950	88.4
Yugoslavia	18,189	184	1.3	1958	14.6	1953	94.0
Romania	18,059	197	1.4	1958	12.9	1956	94.6
Eastern Germany	16,255	392	-0.9	..	(a)	1950	80.2
Czechoslovakia	13,470	273	1.0	1959	6.3	1950	94.6
Netherlands	11,186	893	1.3	1959	14.2	1947	99.1
Hungary	9,857	274	0.6	1959	4.8	1960	93.4
Belgium	9,053	769	0.6	1958	5.4	1947	97.4
Portugal	8,981	252	0.8	1958	13.5	1950	92.7
Greece	8,173	160	0.9	..	(a)	1951	95.2
Bulgaria	7,728	181	1.0	1958	10.0	1956	99.6
Sweden	7,415	43	0.7	1958	4.6	1950	99.2
Austria	7,021	217	0.2	1958	4.9	1951	86.6
Switzerland	5,185	325	1.2	1958	8.1	1950	93.0
Denmark	4,515	272	0.7	1958	7.4	..	(a)
Finland	4,376	34	1.1	1959	9.6	1950	91.6
Norway	3,526	28	1.0	1959	9.2	1950	98.3
Ireland	2,853	105	-0.7	1959	9.1	1956	101.9
West Berlin	2,224	11,957	0.4	1958	-6.5	1956	73.9
Turkey (European)	2,128	235	(a)	..	(a)	..	(a)
Albania	1,507	136	3.0	..	(a)	1955	105.2
East Berlin	1,100	7,051	-1.3	..	(a)	1950	74.2
<i>Oceania—</i>							
Australia	9,846	3	2.2	1958	14.1	1954	102.4
New Zealand	2,282	22	2.2	1958	17.7	1956	101.1
New Guinea	1,341	14	3.3	..	(a)	..	(a)
Papua	487	5	4.2	..	(a)	..	(a)
Union of Soviet Socialist Republics	(f) 208,827	(f) 24	(a)	..	(a)	1959	81.9

(a) Not available or available information relates to a segment of population only. (b) 1955.
(c) 1956. (d) 1954-58. (e) 1949. (f) 1959.

Minus (—) denotes rate of decrease.

CHAPTER X.

VITAL STATISTICS.

NOTE.—The tables in this chapter are confined to the principal characteristics of vital statistics for Australia, and relate, in the main, to the year 1959, except for the totals of marriages, births, deaths and infant deaths, for which it has been possible to include figures for 1960. Comparisons have been restricted, in general, to the individual years 1956 to 1960 and the five-year periods 1926–30 to 1955–60, while age data have been shown in five-year groups. Comparisons over longer periods, together with more detailed figures such as single age particulars and cross-classifications of various characteristics, will be found in the annual bulletin, *Demography*. Current information is published in the *Monthly Review of Business Statistics*, the *Quarterly Summary of Australian Statistics* and the *Australian Demographic Review* (a mimeograph series issued at intervals throughout the year on population and vital statistics).

Figures of births and deaths for Australia throughout are exclusive of full-blood aborigines.

Vital statistics for the principal countries of the world are set out in §7. International Vital Statistics, of this chapter.

§ 1. Provisions for Registration and Compilation of Statistics.

In Australia, vital statistics are compiled from information supplied for the registration of births, deaths and marriages. Each State and Territory has an independent system of registration. Provisions for the civil registration of births, deaths and marriages have been in force in Tasmania from 1839, in Western Australia from 1841, in South Australia from 1842, in Victoria from 1853 and in New South Wales and Queensland (then part of New South Wales) from 1856. Registration in the Territories is administered by the Commonwealth Government, registration in respect of the Northern Territory having been taken over from South Australia in 1911 and in respect of the Australian Capital Territory from New South Wales in 1930. The authority responsible for the registration of births, deaths and marriages occurring within his particular State or Territory is the Registrar-General (the Government Statist in Victoria) or the Principal Registrar.

In the Australian Capital Territory and the Northern Territory, information concerning a birth is required to be supplied within 21 days, in South Australia in 42 days, and in all other States 60 days is allowed. In all States, however, provision has been made for the late registration of births. For the registration of a death, the period allowed is 8 days in Tasmania, 10 days in South Australia, 14 days in Western Australia, the Northern Territory and the Australian Capital Territory, 21 days in Victoria and 30 days in New South Wales and Queensland. Provision is made in all States and Territories for the celebration of marriages by ministers of religion registered for that purpose with the Registrar-General (the Government Statist in Victoria) or the Principal Registrar of Births, Deaths and Marriages of the State or Territory, and also by certain civil officers. In all cases, the celebrant, whether minister of religion or civil officer, is required to register particulars of the parties married with the Registrar-General's Office. In Victoria, Western Australia, the Northern Territory and the Australian Capital Territory, registration of a marriage is required immediately following the ceremony, in Tasmania and South Australia within 7 days, and in New South Wales and Queensland within 30 days.

The registration of stillbirths is compulsory in all the States and Territories, except Tasmania. Western Australia was the first State to introduce compulsory registration in 1908, followed by the Australian Capital Territory in 1930, New South Wales in 1935, South Australia in 1937, the Northern Territory in 1949, Victoria in 1953, and Queensland in 1959. Registration in New South Wales, Western Australia, the Northern Territory and the Australian Capital Territory is effected as a birth and subsequent death; in the other States as a stillbirth. Though registration is not compulsory in Tasmania, it is believed that for various reasons nearly all stillbirths are registered voluntarily. In this chapter, stillbirths have been excluded from all tables of births and deaths and are shown only in those specially relating to stillbirths.

The data for the compilation of vital statistics are obtained from registry records and forwarded, through the Deputy Commonwealth Statistician in each State, and direct from the Principal Registrars in the two Territories, to the Commonwealth Statistician. The compilation and publication of vital statistics for Australia is one of the functions of the Commonwealth Statistician. The Deputy Commonwealth Statisticians compile and publish statistics relating to their respective States.

§ 2. Marriages.

1. **Number of Marriages.**—The number of marriages registered in Australia during the year ended 31st December, 1960, was 75,428, giving a rate of 7.34 per 1,000 of the mean population for the year. A summary of the number of marriages registered in each State and Territory in five-year periods from 1926–30 to 1956–60 and for each of the years 1956 to 1960, is given in the following table. Annual averages for each five-year period from 1861 to 1950 were published in Official Year Book No. 39, page 575. A graph showing the number of marriages in each year from 1860 to 1960 appears on page 343 of this issue.

MARRIAGES.

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
ANNUAL AVERAGES.									
1926–30 ..	19,253	12,955	6,279	4,036	3,167	1,506	23	30	47,249
1931–35 ..	18,742	12,773	6,950	3,967	3,328	1,638	29	53	47,480
1936–40 ..	25,295	17,784	8,982	5,726	4,399	2,187	83	85	64,541
1941–45 ..	28,506	19,450	10,563	6,517	4,668	2,097	71	109	71,981
1946–50 ..	30,162	20,453	10,666	6,581	5,205	2,529	114	181	75,891
1951–55 ..	28,483	20,007	10,171	6,290	5,232	2,539	146	234	73,102
1956–60 ..	28,433	20,422	10,253	6,517	5,145	2,573	190	321	73,854
ANNUAL TOTALS.									
1956 ..	27,313	20,137	9,934	6,277	5,080	2,601	160	278	71,780
1957 ..	28,767	20,239	10,271	6,581	4,897	2,507	178	256	73,696
1958 ..	28,554	20,649	10,255	6,505	5,038	2,475	201	324	74,001
1959 ..	28,201	20,456	10,581	6,614	5,387	2,567	205	352	74,363
1960 ..	29,328	20,627	10,227	6,607	5,323	2,713	208	395	75,428

2. **Crude Marriage Rates.**—The crude marriage rates for each State and Territory from 1926–30 to 1960 are given hereunder:—

CRUDE MARRIAGE RATES.(a)

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
AVERAGE ANNUAL RATES.									
1926–30 ..	7.86	7.42	7.10	7.12	7.80	6.97	5.11	3.86	7.52
1931–35 ..	7.20	7.02	7.35	6.83	7.58	7.19	5.92	5.74	7.16
1936–40 ..	9.29	9.52	8.80	9.65	9.49	9.25	13.28	7.22	9.35
1941–45 ..	9.97	9.86	10.04	10.61	9.74	8.61	7.18	7.57	9.94
1946–50 ..	9.90	9.72	9.41	9.87	10.01	9.56	9.39	9.36	9.77
1951–55 ..	8.41	8.34	7.92	8.11	8.44	8.35	9.21	(b)8.22	8.29
1956–60 ..	7.70	7.44	7.25	7.26	7.30	7.63	9.75	(b)7.55	7.50
ANNUAL RATES.									
1956 ..	7.68	7.73	7.27	7.40	7.50	8.07	8.94	(b)8.01	7.61
1957 ..	7.94	7.57	7.38	7.53	7.08	7.59	9.50	(b)6.80	7.64
1958 ..	7.73	7.54	7.25	7.25	7.14	7.33	10.45	7.88	7.51
1959 ..	7.50	7.27	7.36	7.18	7.49	7.45	10.01	7.55	7.39
1960 ..	7.66	7.13	7.01	6.99	7.28	7.74	9.75	7.51	7.34

(a) Number of marriages per 1,000 of mean population. (b) Revised rates based on population estimates adjusted in accordance with the June, 1957 Population Count of Canberra are as follows:—1951–55, 8.20; 1956–60, 7.51; 1956, 7.86; 1957, 6.74.

3. **Marriage Rates based on Marriageable Population.**—As the marriage rates in some international tabulations are based on the unmarried population aged 15 years and over, the corresponding rates have been calculated for Australia for the eight census periods to 1953-55. The period in each case comprises the census year with the year immediately preceding and the year immediately following, and the figures are as follows:—

PERSONS MARRYING PER 1,000 OF UNMARRIED POPULATION: AUSTRALIA.

Period.				Rate.(a)	Period.				Rate.(a)
1880-82	..	..	..	48.63	1920-22	..	..	..	55.97
1890-92	..	..	..	44.04	1932-34	..	..	..	42.88
1900-02	..	..	..	42.14	1946-48	..	..	..	71.24
1910-12	..	..	..	50.12	1953-55	..	..	..	65.32

(a) Average annual number of persons who married per 1,000 unmarried persons, including widowed and divorced, aged 15 years and over.

4. **Crude Marriage Rates of Principal Countries.**—The crude marriage rates of Australia and the principal countries of the world for the latest available year are shown in § 7. International Vital Statistics.

5. **Age and Conjugal Condition at Marriage.**—(i) *General.* Particulars of age at marriage in age groups and previous conjugal condition of bridegrooms and brides in 1959 are given hereunder. There were 7,196 males under 21 years of age married during 1959, while the corresponding number of females was 27,860. At the other extreme, there were 1,034 bridegrooms and 505 brides in the age group 65 years and over.

**AGE AND CONJUGAL CONDITION OF BRIDEGROOMS AND BRIDES:
AUSTRALIA, 1959.**

Age at Marriage (Years).	Bridegrooms.				Brides.			
	Bachelors.	Widowers.	Divorced.	Total.	Spinsters.	Widows.	Divorced.	Total.
Under 20 ..	3,478	..	..	3,478	18,919	7	1	18,927
20-24 ..	32,262	14	50	32,326	33,909	81	253	34,243
25-29 ..	18,690	62	463	19,215	7,695	177	987	8,859
30-34 ..	7,227	147	984	8,358	2,724	293	1,229	4,246
35-39 ..	2,543	182	927	3,652	1,223	379	1,038	2,640
40-44 ..	1,063	265	727	2,055	519	424	695	1,638
45-49 ..	666	346	635	1,647	369	490	518	1,377
50-54 ..	340	410	370	1,120	230	434	250	914
55-59 ..	192	467	238	897	138	327	111	576
60-64 ..	98	382	101	581	95	298	45	438
65 and over ..	112	857	65	1,034	81	389	35	505
Total ..	66,671	3,132	4,560	74,363	65,902	3,299	5,162	74,363

(ii) *Proportional Distribution.* In the following table, the proportional distribution of bridegrooms and brides according to previous conjugal condition is shown in five-year periods from 1926-30 to 1951-55 and for each of the years 1956 to 1959.

CONJUGAL CONDITION OF BRIDEGROOMS AND BRIDES: PROPORTIONAL DISTRIBUTION, AUSTRALIA.

(Per Cent.)

Period.	Bridegrooms.				Brides.			
	Bach- elors.	Wid- owers.	Divorced.	Total.	Spinsters.	Widows.	Divorced.	Total.
1926-30 ..	92.31	5.93	1.76	100.00	93.46	4.55	1.99	100.00
1931-35 ..	92.63	5.39	1.98	100.00	94.37	3.53	2.10	100.00
1936-40 ..	92.59	4.82	2.59	100.00	93.94	3.38	2.68	100.00
1941-45 ..	91.44	4.77	3.79	100.00	92.11	3.93	3.96	100.00
1946-50 ..	88.82	4.74	6.44	100.00	88.71	4.74	6.55	100.00
1951-55 ..	88.77	4.63	6.60	100.00	88.04	4.81	7.15	100.00
1956 ..	89.59	4.33	6.08	100.00	88.45	4.68	6.87	100.00
1957 ..	89.92	4.27	5.81	100.00	88.84	4.56	6.60	100.00
1958 ..	90.08	4.10	5.82	100.00	89.13	4.28	6.59	100.00
1959 ..	89.66	4.21	6.13	100.00	88.62	4.44	6.94	100.00

(iii) *Relative Ages of Bridegrooms and Brides.* The relative ages of bridegrooms and brides in 1959 are shown below in age groups of five years.

RELATIVE AGES OF BRIDEGROOMS AND BRIDES: AUSTRALIA, 1959.

Age of Bridegroom (Years).	Total Bride- grooms.	Age of Bride (Years).							
		Under 15.	15-19.	20-24.	25-29.	30-34.	35-39.	40-44.	45 and over.
Under 20 ..	3,478	11	2,855	592	18	1	..	1	..
20-24 ..	32,326	21	12,051	18,737	1,317	159	31	3	7
25-29 ..	19,215	7	3,179	11,208	3,723	800	226	50	22
30-34 ..	8,358	..	655	2,885	2,524	1,496	566	155	77
35-39 ..	3,652	..	98	590	836	958	720	302	148
40-44 ..	2,055	1	29	149	273	473	488	358	284
45-49 ..	1,647	1	16	55	108	237	335	357	538
50-54 ..	1,120	..	1	12	42	78	158	224	605
55-59 ..	897	..	1	8	13	26	77	116	656
60-64 ..	581	..	1	6	4	10	28	39	493
65 and over..	1,034	..	..	1	1	8	11	33	980
Total Brides	74,363	41	18,886	34,243	8,859	4,246	2,640	1,638	3,810

(iv) *Average Ages of Bridegrooms and Brides.* The average age at marriage of brides and bridegrooms has declined during recent years. The average ages, in years, of brides for each of the five years to 1959 were:—1955, 25.42; 1956, 25.34; 1957, 25.18; 1958, 25.00; and 1959, 25.01. The average ages, in years, of bridegrooms were 28.68 in 1955, 28.66 in 1956, 28.54 in 1957, 28.36 in 1958, and 28.39 in 1959. The difference in the average age at marriage as between brides and bridegrooms is generally just over three years, the difference in 1959 being 3.38 years.

6. **Previous Conjugal Condition.**—The following table shows the relative conjugal condition of bridegrooms and brides in 1959.

CONJUGAL CONDITION OF BRIDEGROOMS AND BRIDES: AUSTRALIA, 1959.

Conjugal Condition of Bridegrooms.	Total. Bridegrooms.	Conjugal Condition of Brides.		
		Spinsters.	Widows.	Divorced.
Bachelors	66,671	62,403	1,297	2,971
Widowers	3,132	1,087	1,390	655
Divorced	4,560	2,412	612	1,536
Total Brides	74,363	65,902	3,299	5,162

7. **Birthplaces of Persons Marrying.**—A table showing the relative birthplaces of bridegrooms and brides married in each year will be found in the annual bulletin, *Demography*.

8. **Occupation of Bridegrooms.**—The distribution of the 74,363 bridegrooms for 1959 amongst classes of occupations was as follows:—craftsmen, 20,172; commercial and clerical, 13,476; operatives, 11,698; rural, fishing and hunting, 7,805; labourers, 7,636; professional and semi-professional, 4,380; domestic and protective service, 4,350; administrative, 2,879; not gainfully occupied and not stated, 1,967.

9. **Celebration of Marriages.**—In all the States, marriages may be celebrated either by ministers of religion who are registered for that purpose with the Registrar-General, or by certain civil officers—in most cases district registrars—but most of the marriages are celebrated by ministers of religion. The registered ministers in 1959 belonged to more than forty different denominations, some of which, however, have only very few adherents. A number of these have been combined under the heading "Other Christian". The figures for 1959 are shown in the following table:—

MARRIAGES IN EACH DENOMINATION, 1959.

Denomination.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia.	
									No.	Proportion of Total.
Church of England	8,797	4,644	2,832	1,305	1,596	923	30	111	20,238	27.21
Roman Catholic	7,506	5,659	2,851	1,376	1,387	522	69	100	19,470	26.18
Methodist	2,604	2,593	1,633	1,577	629	388	3	13	9,440	12.69
Presbyterian	2,971	3,273	1,873	271	352	133	18	29	8,920	12.00
Greek Orthodox	749	800	119	252	50	12	4	8	1,994	2.68
Baptist	403	312	181	141	73	66	..	3	1,179	1.59
Lutheran	169	243	255	391	35	5	6	10	1,114	1.50
Congregational	278	258	97	247	91	40	..	2	1,013	1.36
Church of Christ	87	347	64	207	92	25	1	3	826	1.11
Salvation Army	111	99	110	48	32	26	5	1	432	0.58
Seventh-day Adventist	88	38	30	11	17	6	..	..	190	0.26
Unitarian	2	43	..	6	..	..	..	..	51	0.07
Other Christian	166	127	165	49	156	25	29	..	717	0.96
Hebrew	116	157	3	..	19	..	..	..	295	0.40
Other Non-Christian . . . .	..	..	..	6	..	..	..	..	6	0.01
Total	24,047	18,593	10,213	5,887	4,529	2,171	165	280	65,885	88.60
Civil Officers	4,154	1,863	368	727	858	396	40	72	8,478	11.40
Grand Total	28,201	20,456	10,581	6,614	5,387	2,567	205	352	74,363	100.00

**PROPORTION OF TOTAL.
(Per cent.)**

Denominational	85.27	90.89	96.52	89.01	84.07	84.57	80.49	79.55	88.60
Civil	14.73	9.11	3.48	10.99	15.93	15.43	19.51	20.45	11.40

§ 3. Divorce.

The number of dissolutions of marriage, nullities of marriage and judicial separations in 1959 was 7,340. Further information may be found in Chapter XVI.—Public Justice, and detailed tables relating to divorce statistics for 1959 and summary tables for earlier years in *Demography*, Bulletin No. 77.

§ 4. Fertility and Reproduction.

1. **Introduction.**—Of the two elements of increase in the population, natural increase and net migration, the former has been by far the more important in Australia for many years. The level of natural increase depends on the excess of births over deaths and the relation between fertility and mortality determines the rate of reproduction or replacement of the population.

2. **Number of Live Births and Confinements.**—(i) *Year 1959.* There are various methods of measuring the fertility of the population by relating the number of births to the number in the population. In each, the basic data are, of course, the numbers of live births.

The number of live births registered in Australia during 1959 is shown in the following table. The table shows also the number of confinements resulting in one or more live births. The figures exclude cases where the births were of still-born children only.

LIVE BIRTHS AND CONFINEMENTS, 1959.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W.A.	Tas.	N.T.	A.C.T.	Aus- tralia.
LIVE BIRTHS.									
Single births ..	79,043	60,816	34,841	19,860	16,695	8,409	782	1,343	221,789
Twins ..	1,798	1,412	740	506	416	216	14	19	5,121
Triplets ..	25	17	18	6	..	..	..	..	66
Males ..	41,316	32,041	18,295	10,325	8,726	4,423	407	708	116,241
Females ..	39,550	30,204	17,304	10,047	8,385	4,202	389	654	110,735
Total ..	80,866	62,245	35,599	20,372	17,111	8,625	796	1,362	226,976

STILLBIRTHS ASSOCIATED WITH MULTIPLE BIRTHS INCLUDED ABOVE.

Twins ..	48	10	14	10	14	4	..	1	101
Triplets ..	2	4	..	..	..	..	..	..	6

CONFINEMENTS RESULTING IN BIRTHS SHOWN ABOVE.

Nuptial ..	76,003	59,248	33,085	19,390	16,024	8,133	657	1,322	213,862
Ex-nuptial ..	3,972	2,286	2,139	730	886	386	132	31	10,562
Total ..	79,975	61,534	35,224	20,120	16,910	8,519	789	1,353	224,424

NOTE.—Owing to the registration procedure adopted in some States, it is possible that in some cases where one child only of a multiple pregnancy is live-born the confinement has been treated as a single birth. However, the numbers of multiple births are not significantly affected. See also para. 13, p. 344.

(ii) *Live Births, Years 1926 to 1960.* The average annual number of live births in each State and Territory for each five-year period from 1926 to 1960 and the total number of live births for each year from 1956 to 1960 are given in the following table. Corresponding figures for each five-year period from 1861 to 1950 were published in *Official Year Book* No. 39, page 583.

LIVE BIRTHS.

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
ANNUAL AVERAGES.									
1926-30 ..	53,308	34,333	19,361	11,006	8,748	4,819	70	118	131,763
1931-35 ..	44,964	28,380	17,480	8,646	8,061	4,547	79	145	112,302
1936-40 ..	47,679	30,282	19,534	9,388	8,877	4,866	125	221	120,972
1941-45 ..	56,583	38,002	23,431	12,546	10,409	5,418	113	384	146,886
1946-50 ..	68,856	47,372	28,003	16,270	13,130	7,064	289	734	181,718
1951-55 ..	73,737	53,770	30,983	18,045	15,724	7,774	468	922	201,423
1956-60 ..	79,613	61,279	34,171	19,977	16,922	8,517	694	1,286	222,459

ANNUAL TOTALS.

1956 ..	75,714	58,393	32,409	18,964	16,916	8,104	556	1,077	212,133
1957 ..	79,456	60,464	33,763	19,536	16,924	8,435	646	1,134	220,358
1958 ..	80,045	61,269	33,872	20,047	16,731	8,568	697	1,275	222,504
1959 ..	80,866	62,245	35,599	20,372	17,111	8,625	796	1,362	226,976
1960 ..	81,983	64,025	35,213	20,966	16,926	8,853	777	1,583	230,326

A graph showing the number of births in each year from 1860 to 1960 will be found on page 343.

3. **Crude Birth Rates.**—The oldest and most popular method of measuring fertility is to relate the number of births to the total population, thus obtaining the crude birth rate. The crude birth rate measures the rate per thousand persons (irrespective of age or sex) at which the population has added to its numbers by way of births during a given period. Other methods of measuring fertility are shown on pages 340 *et seq.*

Crude birth rates for each five-year period from 1926 to 1960 and for each year from 1956 to 1960 for each State and Territory are set out below:—

CRUDE BIRTH RATES.(a)

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
AVERAGE ANNUAL RATES.									
1926-30 ..	21.76	19.65	21.90	19.41	21.54	22.29	15.60	14.96	20.98
1931-35 ..	17.28	15.60	18.48	14.89	18.36	19.95	15.99	15.77	16.94
1936-40 ..	17.51	16.20	19.48	15.82	19.16	20.58	19.96	18.68	17.52
1941-45 ..	19.79	19.27	22.28	20.43	21.72	22.23	11.40	26.82	20.28
1946-50 ..	22.60	22.51	24.69	24.41	25.24	26.71	23.77	37.92	23.39
1951-55 ..	21.78	22.41	24.13	23.25	25.35	25.57	29.64	63.30	22.85
1956-60 ..	21.56	22.33	24.17	22.27	24.00	25.27	35.55	30.25	22.58

ANNUAL RATES.

1956 ..	21.29	22.42	23.72	22.35	24.98	25.15	31.07	631.04	22.50
1957 ..	21.93	22.61	24.25	22.35	24.47	25.55	34.49	630.13	22.86
1958 ..	21.67	22.36	23.95	22.35	23.71	25.37	36.25	31.01	22.59
1959 ..	21.51	22.13	24.77	22.12	23.80	25.05	38.87	29.22	22.56
1960 ..	21.41	22.14	24.14	22.19	23.14	25.26	36.42	30.12	22.40

(a) Number of births per 1,000 of mean population. (b) Revised rates based on population estimates adjusted in accordance with the June, 1957, Population Count of Canberra are as follows:—1951-55, 32.22; 1956-60, 30.10; 1956, 30.47; 1957, 29.84.

NOTE.—The birth rates in the table above are based on live births registered in the respective States and Territories. Prior to 1939, a large proportion of births in respect of which the mother's usual residence was the Australian Capital Territory took place in Queanbeyan, just over the New South Wales border. With improved hospital facilities in the Territory, the position was reversed until late in 1952, when maternity accommodation was provided at the Queanbeyan District Hospital. The rates in the following table, based on births in respect of which the mother's usual residence was the Australian Capital Territory, are a truer measure of birth rates in the Australian Capital Territory. The variations similarly caused in the birth rates for the States and the Northern Territory by referring the birth registrations to the State or Territory in which the mother was usually resident are shown by the following corrected rates for 1960:—New South Wales, 21.42; Victoria, 22.15; Queensland, 24.08; South Australia, 22.11; Western Australia, 23.16; Tasmania, 25.34; and Northern Territory, 36.94.

Average Annual Rates.			Annual Rates.		
1926-1930 ..	..	22.45	1956 ..	..	(a)30.64
1931-1935 ..	..	19.53	1957 ..	..	(a)29.58
1936-1940 ..	..	19.29	1958 ..	..	31.04
1941-1945 ..	..	23.06	1959 ..	..	29.52
1946-1950 ..	..	27.13	1960 ..	..	30.86
1951-1955 ..	..	(a)28.39			
1956-1960 ..	..	(a)30.34			

(a) Revised rates based on population estimates adjusted in accordance with the June, 1957 Population Count of Canberra are as follows:—1951-55, 28.32; 1956-60, 30.19; 1956, 30.07; 1957, 29.29.

A graph showing the birth rate for each year from 1860 to 1960 will be found on page 344.

In the earlier years of the present century, the crude birth rate fluctuated somewhat, but from 1912, when 28.60 was recorded, there was an almost continuous decline to the very low figure of 16.39 in 1934. The decline in the depression years was occasioned to some extent by the postponement of marriages. With subsequent improvement in economic conditions the rate rose, and in 1940 it increased quite appreciably, owing to a continued improvement in the economic welfare of the community and the war-time increase in marriages. The improvement in the birth rate has been substantially maintained since the end of the war despite some falling off in marriage rates. The post-war peak of 24.07 was recorded in 1947.

4. Crude Birth Rates of Principal Countries.—The crude birth rates of Australia and the principal countries of the world for the latest available year are shown in § 7. International Vital Statistics.

5. Fertility Rates.—The principal demographic factors affecting the level of crude birth rates are the proportion of women of child-bearing age in the population and the proportion of such women who are married. These factors may vary considerably at different periods and for different countries, and a population with a higher proportion of married women of child-bearing age will have a much higher crude birth rate than one with a low proportion, although the fertilities of the two populations may be identical.

In order to compare fertilities, births are sometimes related to the number of women of child-bearing age or, alternatively, nuptial births are related to the number of married women of child-bearing age. Thus births are related to potential mothers, giving the fertility rate.

The following table sets out for certain periods, commencing with 1880–82, the number of births per thousand of mean population, the number of births per thousand women of child-bearing age and the number of nuptial births per thousand married women of child-bearing age. For purposes of this table, the child-bearing age has been taken to be 15–44 years inclusive, but births to mothers who were stated to be under 15 or over 44 years have been included in the compilations.

CRUDE BIRTH RATES AND FERTILITY RATES: AUSTRALIA.

Period.	Average Annual Rates.			Index Nos. (Base: 1880–82= 100).		
	Crude Birth Rate.(a)	Fertility Rates.		Crude Birth Rate.(a)	Fertility Rates.	
		Births per 1,000 Women aged 15–44 Years.	Nuptial Births per 1,000 Married Women aged 15–44 Years.		Births per 1,000 Women aged 15–44 Years.	Nuptial Births per 1,000 Married Women aged 15–44 Years.
1880–82.. ..	35.3	170	321	100	100	100
1890–92.. ..	34.5	159	332	98	94	103
1900–02.. ..	27.2	117	235	77	69	73
1910–12.. ..	27.2	117	236	77	69	74
1920–22.. ..	25.0	107	197	71	63	61
1932–34.. ..	16.7	71	131	47	42	41
1946–48.. ..	23.6	104	160	67	61	50
1953–55.. ..	22.7	109	149	64	64	46

(a) Number of births per 1,000 of mean population.

The table above shows how increasing proportions both of women of child-bearing age and of married women of child-bearing age inflate the crude birth rate. Thus, while the nuptial birth rate for married women increased by only 22 per cent. over the period 1932–34 to 1946–48 the crude birth rate rose by 41 per cent. owing principally to the greatly increased number of marriages during that period.

6. Age-specific Fertility Rates for Females.—So long as customary ages at marriage do not change drastically, the main demographic factor affecting the number of births is the age composition of the potential mothers in the population. Within the child-bearing group, the fertility of women of different ages varies considerably and a clearer view of the fertility

of the population can be obtained from an examination of what are known as its age-specific fertility rates, that is, the number of births to women of specified ages per thousand women of those particular ages.

Age-specific fertility rates are more commonly expressed in age groups than in single ages. In the following table, such rates, calculated in terms of female births for the purpose of obtaining the gross and net reproduction rates described in para. 7, are shown in five-year age groups for Australia for the period 1926 to 1959.

AGE-SPECIFIC FERTILITY RATES(a): AUSTRALIA.

Age Group (Years).	1926.	1931.	1936.	1941.	1946.	1951.	1956.	1958.	1959.
15-19	14.02	13.08	12.18	11.90	12.63	18.59	20.84	21.81	22.05
20-24	60.23	53.08	50.33	59.42	73.52	85.84	101.46	105.43	106.06
25-29	76.82	62.47	62.02	70.78	89.51	90.24	98.11	103.28	104.40
30-34	61.90	51.25	46.33	49.72	65.03	59.16	59.65	61.32	61.64
35-39	43.55	33.23	28.89	28.69	37.43	32.29	31.32	31.65	31.61
40-44	17.63	13.61	10.19	9.52	11.87	9.97	9.48	9.19	9.13
45-49	1.90	1.45	1.11	0.80	1.03	0.80	0.76	0.73	0.70

(a) Number of female births per 1,000 women in each age group.

The table shows that in recent years the most fertile age group has been 20-24 years, whereas previously fertility had been highest for the 25-29 age group. The decline in fertility between 1926 and 1936 was general, but was more pronounced in the higher age groups. During the period 1936 to 1959, a rise in fertility occurred in all age-groups below 40. The most noticeable increase has been in the 20-24 age group, in which, as mentioned, fertility is now highest, as the result of a marked trend towards earlier marriage.

7. Gross and Net Reproduction Rates for Females.—A single measure of reproduction, known as the gross reproduction rate, is obtained by adding together the specific fertility rates for each age in the child-bearing group. This measure indicates the number of female children who would be born on an average to women living right through the child-bearing period, if the conditions on which the rate is based continue. The rate is unaffected by the age composition of the potential mothers, and consequently it shows more clearly than the crude birth rate the reproductive propensity of the population. It is, however, an imperfect measure of reproduction because it does not take into account the females who fail to live from birth to the end of the reproductive period. A more accurate measure of this nature is obtained by multiplying the specific fertility rates by the number of females in the corresponding age group of the stationary or life table population and summing the products. Allowance is thus made for the effect of mortality and the result is known as the net reproduction rate. The net reproduction rate indicates the average number of female children who would be born to women during their lifetime if they were subject at each age to the fertility and mortality rates on which the calculation is based. A constant net reproduction rate of unity indicates that the population will ultimately become stationary. If it continues greater than unity, the population will ultimately increase; if less than unity, it will ultimately decrease. The following table should be read in the light of the comment which follows it and of the index of marriage fertility in paragraph 9, page 342.

GROSS AND NET REPRODUCTION RATES: AUSTRALIA.

Year.	Gross Reproduction Rate.	Net Reproduction Rate.	Year.	Gross Reproduction Rate.	Net Reproduction Rate.
1881(a)	2.65	(b) 1.88	1947	1.493	(g) 1.416
1891(a)	2.30	(b) 1.73	1954	1.558	(h) 1.497
1901(a)	1.74	(c) 1.39	1955	1.594	(h) 1.532
1911	1.705	(d) 1.421	1956	1.608	(h) 1.546
1921	1.511	(e) 1.313	1957	1.662	(h) 1.598
1931	1.141	(f) 1.039	1958	1.667	(h) 1.603
1941	1.154	(f) 1.053	1959	1.678	(h) 1.614

(a) Approximate only. (b) 1881-1890 mortality experience used. (c) 1891-1900 mortality experience used. (d) 1901-1910 mortality experience used. (e) 1920-1922 mortality experience used. (f) 1932-1934 mortality experience used. (g) 1946-1948 mortality experience used. (h) 1953-1955 mortality experience used.

NOTE.—It is not strictly correct to assume, as in the calculations of the rates above, that a particular age-specific fertility rate can be applied to a hypothetical group of women reaching that age, without taking account of previous fertility and marriage experience. Reproduction rates are therefore unreliable when birth and marriage rates have been changing. The indexes of marriage fertility shown on the next page are also of doubtful reliability in similar circumstances.

Since 1881, there has been a substantial downward trend in both rates, but the gross rate has fallen considerably more than the net, showing that the decline in fertility has been offset to some extent by a decline in mortality. The net reproduction rate was below unity over the period 1932 to 1939. If such low levels were to be experienced indefinitely, ultimate population decline would be certain. The progressive rise in both gross and net reproduction rates from 1939 to 1947 was due largely to higher marriage rates during the war and early post-war years than had been experienced in the immediate pre-war years. Owing to various influences, the number of marriages in each year since 1950 has remained at a relatively high level and the net reproduction rates have been rising slowly. The fertility of marriages is shown in paragraph 9 below.

8. **Gross and Net Reproduction Rates, Various Countries.**—In the following table, a comparison is given of the gross and net reproduction rates recorded for various countries in the period 1954 to 1959. These represent the latest available international comparison.

GROSS AND NET REPRODUCTION RATES: VARIOUS COUNTRIES.

Country.	Period.	Reproduction Rate.		Country.	Period.	Reproduction Rate.	
		Gross.	Net.			Gross.	Net.
Thailand ..	1954	2.26	1.70	France ..	1958	1.31	1.26
New Zealand(a) ..	1958	1.93	1.86	Finland ..	1958	1.29	1.22
Canada ..	1958	1.89	1.80	Denmark ..	1957	1.24	(e)
United States of America(b) ..	1957	1.76	1.70	Switzerland ..	1957	1.24	1.18
Australia(c) ..	1959	1.68	1.61	Austria ..	1958	1.23	1.14
Ireland, Republic of	1955	1.59	1.45	England and Wales	1957	1.19	1.15
Netherlands ..	1958	d1.51	d1.45	Belgium ..	1957	1.19	1.08
Portugal ..	1958	1.47	1.26	Germany—			
Norway ..	1957	1.37	1.32	Eastern	1955	1.13	(e)
Scotland ..	1958	1.36	1.30	Federal Rep. ..	1957	1.12	1.07
Yugoslavia ..	1957	1.34	1.10	Sweden ..	1957	1.11	1.07
Czechoslovakia ..	1957	1.33	1.19	Hungary ..	1958	1.04	0.97
				Japan ..	1957	0.99	0.93

(a) Excludes Maoris.

(b) White population only.

(c) Excludes full-blood aboriginals.

(d) Provisional.

(e) Not available.

In comparing the reproduction rates of the countries shown above, allowance should be made for any differences in years, as the rates for any one country from year to year are affected by variations in the incidence of marriage, as well as the stationary or life table population used.

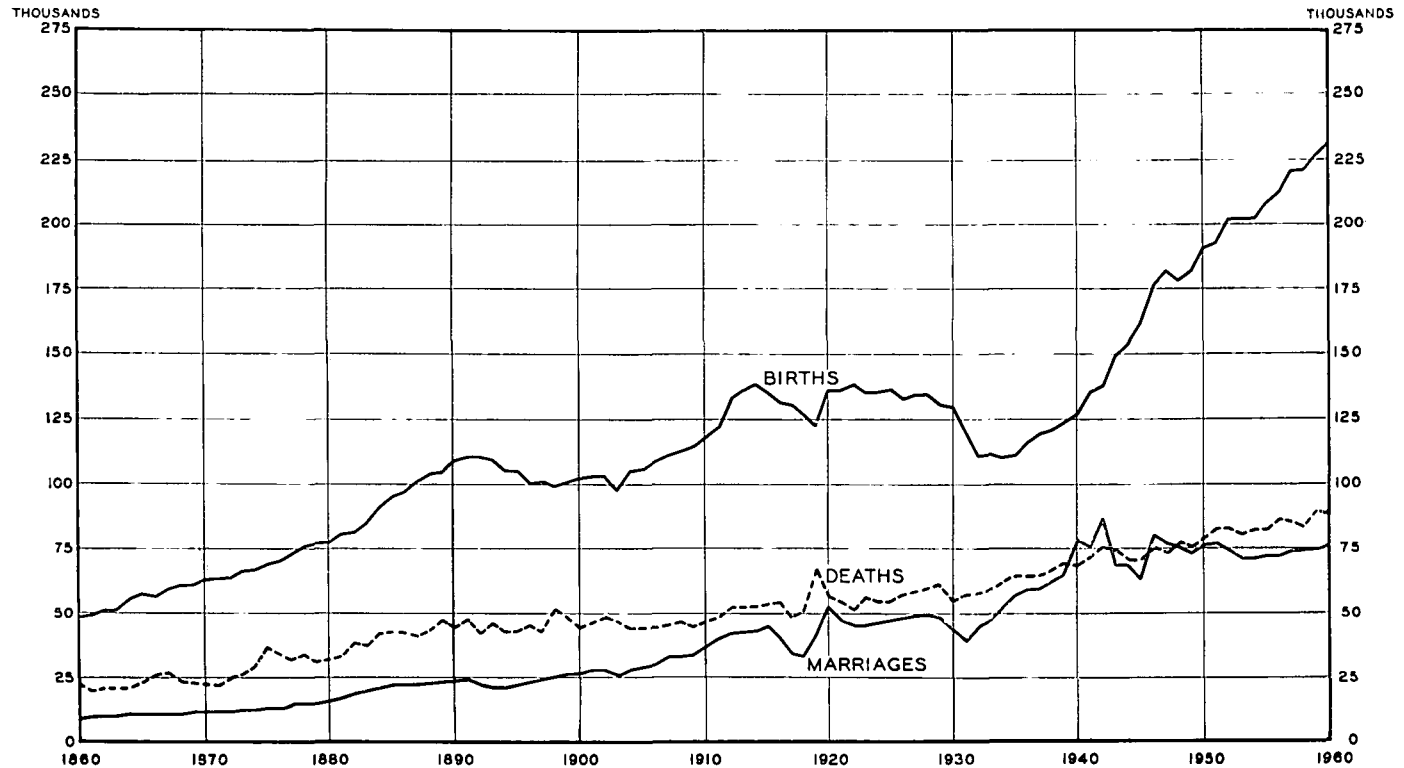
9. **Fertility of Marriages.**—Estimates of the fertility of marriages which were published in issues of the Official Year Book prior to No. 36 were calculated by relating the births of one five-year period to the marriages in the preceding five years (*see* Official Year Book No. 35, p. 329). Since the publication of that issue, an improved method has been formulated for measuring current marriage fertility by relating nuptial confinements in each year to the marriages from which they could have resulted. Confinements of women of a certain number of years duration of marriage are related to the number of marriages taking place that number of years previously. The table below sets out this index of current fertility per marriage in respect of confinements in the individual years shown.

FERTILITY OF MARRIAGES: AUSTRALIA.

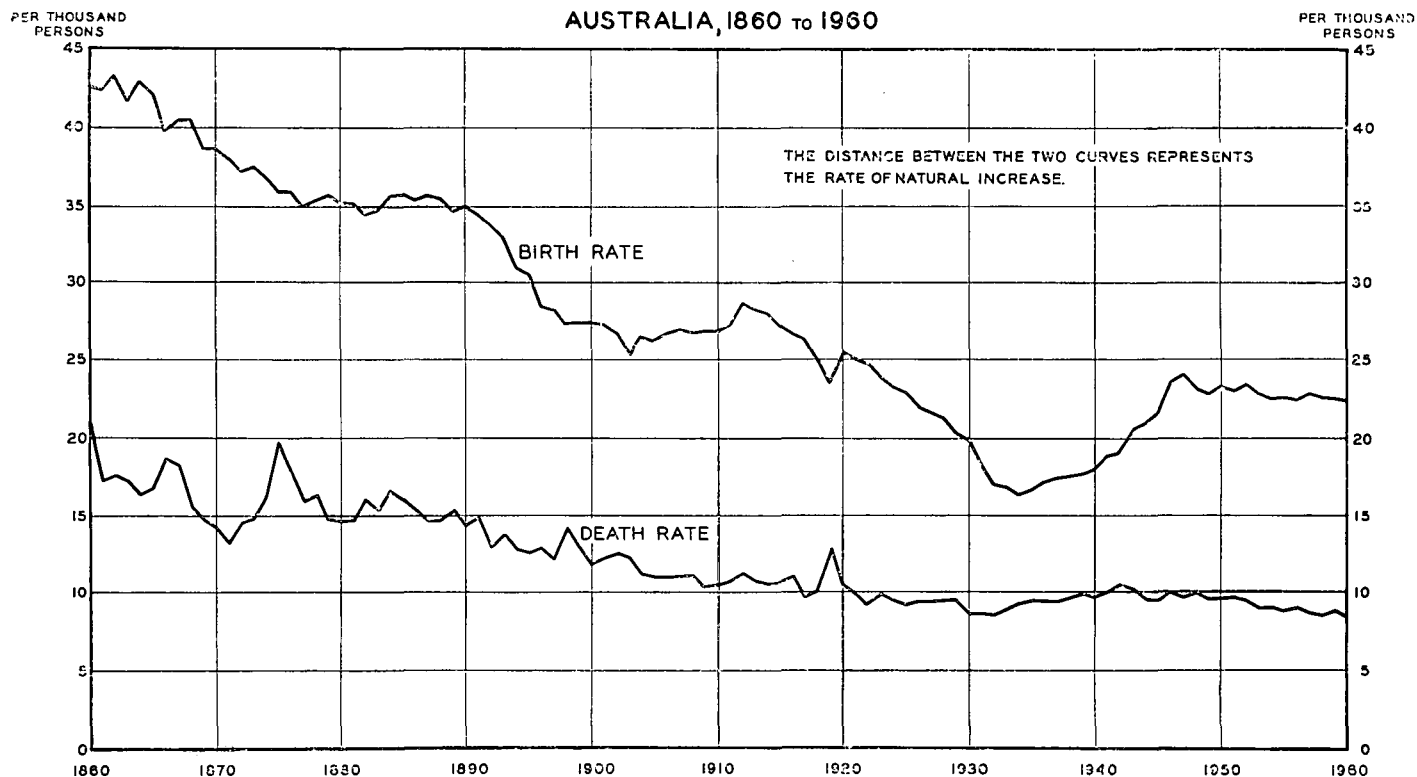
Year.	Nuptial Confinements per Marriage.	Year.	Nuptial Confinements per Marriage.	Year.	Nuptial Confinements per Marriage.
1945..	2.36	1950..	2.56	1955..	2.71
1946..	2.55	1951..	2.55	1956..	2.76
1947..	2.55	1952..	2.63	1957..	2.87
1948..	2.44	1953..	2.66	1958..	2.88
1949..	2.45	1954..	2.66	1959..	2.93

NOTE.—See NOTE to table on page 341.

BIRTHS, DEATHS, AND MARRIAGES : AUSTRALIA, 1860 to 1960

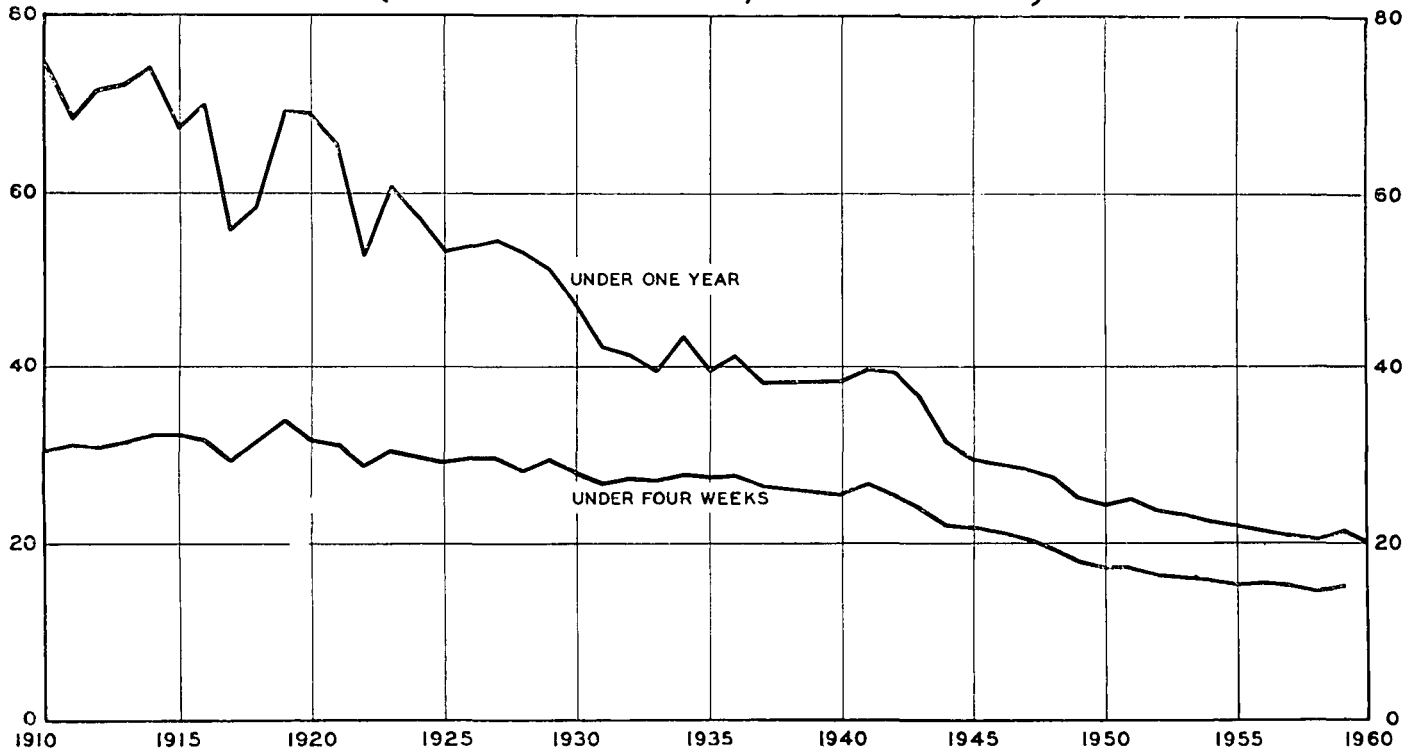


RATES OF BIRTHS, DEATHS, AND NATURAL INCREASE



INFANT MORTALITY RATES: AUSTRALIA, 1910 TO 1960

(INFANT DEATHS PER 1,000 LIVE BIRTHS)



The figure for a particular year gives the estimated number of children which a marriage would produce according to the fertility conditions of that year. There was an almost continuous decline for a number of years to 1942, but a pronounced increase has since occurred. In comparing this index with the net reproduction rate, it is evident that the rise in the latter since 1935 has been caused mainly by a rise in the proportions of women married in the fertile age groups. Only since 1944 has there been an increase in the fertility of marriages compared with pre-war levels.

The figures for 1949 and subsequent years present a somewhat inflated index, as many of the births which have been used to calculate the index relate to marriages of immigrants which took place overseas and consequently are not included in Australian marriage records. Partial investigation suggests that this factor probably overstated the index by very little in 1949, but that the overstatement at present is about 8 per cent.

10. Masculinity of Live Births.—The masculinity of live births, i.e., the number of males born for every 100 female births, has remained fairly stable for Australia at about 105. But when the number of births for which masculinity is being calculated is small (for example, totals for smaller States), considerable variation is shown. The averages for the ten years 1951–60 were as follows:—New South Wales, 105.38; Victoria, 105.50; Queensland, 105.80; South Australia, 104.89; Western Australia, 105.25; Tasmania, 104.96; Northern Territory, 107.16; Australian Capital Territory, 108.77; Australia, 105.43. The following table shows the figures for Australia for each ten-year period from 1901 to 1960 and for each of the years 1958 to 1960:—

MASCULINITY(a) OF LIVE BIRTHS REGISTERED: AUSTRALIA.

Particulars.	1901–10.	1911–20.	1921–30.	1931–40.	1941–50.	1951–60.	1958.	1959.	1960.
Total Births	105.22	105.27	105.55	105.12	105.38	105.43	104.98	104.97	105.81
Ex-nuptial Births	104.08	105.25	105.16	105.36	105.34	103.99	104.83	103.72	104.22

(a) Number of males born for every 100 female births.

11. Ex-nuptial Live Births.—(i) *General.* The highest proportion of ex-nuptial births in any one year since 1901 was recorded in 1905, when there were 6,545 ex-nuptial births, representing 6.24 per cent. of total births. Since then, the proportion has declined. The largest number of ex-nuptial births was recorded in 1960, when 10,987 were registered, but this number represented only 4.77 per cent. of total births. The lowest proportion was 3.78 per cent. in 1940.

The variations in the proportions of ex-nuptial births as between the individual States and Territories for 1960 are shown below.

EX-NUPTIAL LIVE BIRTHS: NUMBER AND PROPORTION, 1960.

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Number	4,114	2,380	2,173	841	921	433	100	25	10,987
Proportion of Total Births %	5.02	3.72	6.17	4.01	5.44	4.89	12.87	1.58	4.77

The number and proportion of ex-nuptial births at intervals from 1901 to 1960 are as follows:—

EX-NUPTIAL LIVE BIRTHS: NUMBER AND PROPORTION, AUSTRALIA.

Particulars.	Annual Average.						1956.	1957.	1958.	1959.	1960.
	1901–10.	1911–20.	1921–30.	1931–40.	1941–50.	1951–60.					
Number	6,498	6,836	6,238	5,133	6,780	9,013	8,970	9,362	10,131	10,687	10,987
Proportion of Total Births %	6.05	5.22	4.66	4.40	4.13	4.25	4.23	4.25	4.55	4.71	4.77

(ii) *Rate of Ex-nuptiality.* A further measure is obtained by calculating the number of ex-nuptial births per thousand of the single, widowed and divorced female population aged from 15 to 44 years. On this basis, the number of ex-nuptial births per 1,000 unmarried women of ages 15 to 44 is as follows:—1880–82, 14.49; 1890–92, 15.93; 1900–02, 13.30; 1910–12, 12.53; 1920–22, 10.50; 1932–34, 6.91; 1946–48, 11.45; and 1953–55, 14.45. Ex-nuptial births to married women, which are not recorded separately, are included in these figures and it is not possible to determine to what extent they influence the trend shown.

(iii) *Comparison of Rates.* The following table, showing the relative proportions of ex-nuptial and nuptial births to the total population, discloses a much greater proportional movement in the ex-nuptial birth rate than in the nuptial rate:—

CRUDE EX-NUPTIAL, NUPTIAL, AND TOTAL BIRTH RATES(a): AUSTRALIA.

Birth Rate.	Annual Average.					1956.	1957.	1958.	1959.
	1901–10.	1911–20.	1921–30.	1931–40.	1941–50.				
Ex-nuptial ..	1.60	1.39	1.04	0.76	0.90	0.95	0.97	1.03	1.06
Nuptial ..	24.91	25.18	21.40	16.47	20.99	21.55	21.89	21.56	21.50
Total ..	26.51	26.57	22.44	17.23	21.89	22.50	22.86	22.59	22.56

(a) Number of births per 1,000 of mean population.

12. *Legitimations.*—Acts have been passed in the several States to legitimize children born before the marriage of their parents, provided that no legal impediment to the marriage existed at the time of birth. On registration in accordance with the provisions of the Legitimation Acts, any child who comes within the scope of their purposes, born before or after the passing thereof, is deemed to be legitimate from birth by the post-natal union of its parents, and entitled to the status of offspring born in wedlock. During 1959, the number of children legitimized in Australia was 945.

13. *Multiple Births.*—Because the current Australian birth statistics are based only on those confinements which resulted in a live-born child, the number of confinements for multiple births for Australia is understated—firstly, because in cases where all children of a multiple birth are still-born the confinement is excluded, and secondly, because some cases of multiple births in which only one child was live-born are registered as single births.

During 1959, multiple births recorded on the above basis comprised 2,611 cases of twins and 24 cases of triplets, the resultant numbers of live-born and still-born children being respectively 5,121 and 101 for twins, 66 and 6 for triplets. This represents an average of 11.63 recorded cases of twins and 0.11 recorded cases of triplets per 1,000 confinements or, alternatively, mothers of twins represented 1 in every 86 mothers and mothers of triplets 1 in every 9,351. Total cases of multiple births represented 11.74 per 1,000 confinements or 1 in every 85 mothers.

The proportion of mothers of multiple births to total mothers does not vary greatly from year to year.

14. *Ages of Parents.*—The relative ages of the parents of children whose births were registered in 1959 have been tabulated separately for male and female births, multiple births being distinguished from single births. For total births and for multiple births, the relative ages of parents are shown in *Demography*, Bulletin No. 77. In the following table, the relative ages of parents are shown in five year groups.

CONFINEMENTS: RELATIVE AGES OF PARENTS, AUSTRALIA, 1959.

Age of Father (Years) and Type of Birth.			Total.	Age of Mother (Years).									
				Under 15.	15-19.	20-24.	25-29.	30-34.	35-39.	40-44.	45 and over.	Not stated.	
Under 20	..	..	1,914	2	1,593	310	8	1	..	..	..	..
20-24	..	..	33,780	3	8,217	22,996	2,361	173	27	2	..	1
25-29	..	..	66,802	1	2,586	31,259	28,991	3,586	352	25	2	..
30-34	..	..	57,906	..	538	8,796	25,567	19,976	2,839	182	8	..
35-39	..	..	32,013	..	119	1,520	6,301	13,730	9,483	835	25	..
40-44	..	..	13,662	1	26	320	1,256	3,804	5,890	2,291	74	..
45-49	..	..	5,523	..	7	96	349	1,027	2,270	1,582	192	..
50-54	..	..	1,626	..	5	28	101	302	584	523	83	..
55-59	..	..	451	..	..	11	36	77	160	134	33	..
60-64	..	..	132	..	1	3	8	27	47	38	8	..
65 and over	..	..	49	..	..	2	4	11	20	11	1	..
Not Stated	..	..	4	..	..	1	1	..	1	..	..	1
Mothers of Nuptial Children	{	Single	211,358	7	12,995	64,814	64,204	42,047	21,312	5,551	426	2	
		Twins	2,481	..	96	525	770	661	357	72	..	..
		Triplets	23	..	1	3	9	6	4	..	..	..
		Total	213,862	7	13,092	65,342	64,983	42,714	21,673	5,623	426	..	
Mothers of Ex-nuptial Children	{	Single	10,431	46	2,720	3,023	1,850	1,524	935	302	28	3	
		Twins	130	..	12	34	37	26	17	3	1	..	
		Triplets	1	..	..	1	..	1	..	..	..	..
		Total	10,562	46	2,732	3,057	1,887	1,551	952	305	29	3	
Total Mothers	{	Single	221,789	53	15,715	67,837	66,054	43,571	22,247	5,853	454	5	
		Twins	2,611	..	108	559	807	687	374	75	1	..	
		Triplets	24	..	1	3	9	7	4	..	..	..
		Total	224,424	53	15,824	68,399	66,870	44,265	22,625	5,928	455	5	

15. *Birthplaces of Parents.*—A table showing birthplaces of parents of children whose births were registered during 1959 appears in *Demography*, Bulletin No. 77.

16. *Occupation of Fathers.*—A table showing occupations of the fathers of nuptial children whose births were registered in 1959 appears in *Demography*, Bulletin No. 77.

17. *Age, Duration of Marriage and Issue of Mothers.*—(i) *General.* The total number of nuptial confinements resulting in live births in 1959 was 213,862, comprising 211,358 single births, 2,481 cases of twins and 23 cases of triplets. The following tables relating to previous issue exclude the issue of former marriages and still-born children. On the other hand, they include in some States children by the same father who were born to the mother prior to the marriage. Children born at the present confinement are included in the total issue shown.

(ii) *Duration of Marriage and Issue of Mothers.* The following table shows that in 1959 the duration of marriage of mothers of nuptial children ranged from less than one year to over 25 years and that the average family increased fairly regularly with the duration of marriage. The average issue of married mothers who bore children in 1959 was 2.58, compared with 2.56 in 1958, 2.54 in 1957, 2.52 in 1956, and 2.50 in 1955.

NUPTIAL CONFINEMENTS: DURATION OF MARRIAGE AND ISSUE OF MOTHERS, AUSTRALIA, 1959.

Duration of Marriage.	Total Married Mothers.	Total Issue.	Average Issue.	Duration of Marriage.	Total Married Mothers.	Total Issue.	Average Issue.
Under 1 year	28,525	29,062	1.02	15 years	2,240	11,220	5.01
1 year	24,443	30,930	1.27	16 "	2,118	10,824	5.11
2 years	24,067	42,184	1.75	17 "	1,828	9,693	5.30
3 "	21,507	44,984	2.09	18 "	1,302	7,428	5.71
4 "	18,943	45,680	2.41	19 "	1,013	6,086	6.01
5 "	15,888	42,961	2.70	20 "	636	4,147	6.52
6 "	13,297	39,642	2.98	21 "	425	2,851	6.71
7 "	12,217	39,897	3.27	22 "	307	2,166	7.06
8 "	10,291	35,977	3.50	23 "	204	1,525	7.48
9 "	8,608	31,659	3.68	24 "	124	922	7.44
10 "	7,219	28,228	3.91	25 years and over	153	1,313	8.58
11 "	6,331	26,418	4.17				
12 "	5,314	23,380	4.40				
13 "	4,066	18,493	4.55	Total	213,862	550,923	2.58
14 "	2,796	13,253	4.74				

(iii) *Age and Average Issue of Mothers.* The following table shows the average number of children born to mothers of different ages. In the younger ages, there is, naturally, little difference in the average number of children to each mother from year to year, but for mothers in the higher age groups the number of issue has fallen, until recently, in comparison with past years. In 1959, average issue was greater in all age groups under 40 years than in the decade 1941–50. The average issue of mothers of all ages recorded for 1959 (namely, 2.58) is 20.6 per cent. below the average of 3.25 for the years 1911–20.

NUPTIAL CONFINEMENTS: AGE AND AVERAGE ISSUE OF MOTHERS: AUSTRALIA.

Period.	Age of Mother (Years).							All Ages.
	Under 20.	20–24.	25–29.	30–34.	35–39.	40–44.	45 and over.	
1911–20 ..	1.21	1.75	2.61	3.74	5.11	6.69	8.16	3.25
1921–30 ..	1.20	1.71	2.46	3.48	4.80	6.27	7.74	3.04
1931–40. ..	1.20	1.68	2.30	3.19	4.41	5.89	7.40	2.71
1941–50 ..	1.17	1.56	2.15	2.85	3.67	4.79	6.19	2.37
1959 ..	1.24	1.75	2.55	3.26	3.97	4.74	5.58	2.58

(iv) *Previous Issue of Mothers, Various Ages.* A classification of mothers by age and previous issue is given for 1959 in the following table:—

NUPTIAL CONFINEMENTS: AGE OF MOTHER AND PREVIOUS ISSUE, AUSTRALIA, 1959.

Previous Issue.	Age of Mother (Years).							Total Married Mothers.
	Under 20.	20–24.	25–29.	30–34.	35–39.	40–44.	45 and over.	
0 ..	10,364	32,507	15,098	5,912	2,281	525	30	66,717
1 ..	2,399	21,296	20,510	9,392	3,338	633	30	57,598
2 ..	313	8,379	16,343	11,152	4,540	848	46	a 41,623
3 ..	22	2,405	7,982	8,120	4,206	989	68	23,792
4 ..	..	598	3,108	4,184	3,051	800	66	11,807
5 ..	..	131	1,223	2,107	1,781	597	50	5,889
6 ..	1	15	521	997	1,053	436	42	3,065
7 ..	..	8	138	458	665	291	26	1,586
8 ..	..	2	44	240	352	182	22	842
9 ..	..	..	12	93	207	128	14	454
10 and over ..	..	1	4	59	199	194	32	489
Total Married Mothers ..	13,099	65,342	64,983	42,714	21,673	5,623	426	a 213,862

(a) Includes 2, age not stated.

(v) *Multiple Births—Previous Issue of Mothers.* Figures regarding the previous issue of married mothers of twins in 1959 show that 619 mothers had no previous issue either living or deceased, 590 had one child previously, 534 had two previous issue, 362 three, 172 four, 95 five, 45 six, 33 seven, 12 eight, 10 nine, 3 ten, 2 eleven, 2 twelve, 1 thirteen and 1 fourteen.

Of the 23 cases of nuptial triplets registered during 1959, 5 mothers had no previous issue, 5 had one, 5 had two, 4 had three, 3 had four, and 1 had six.

18. Nuptial First Births.—(i) *Duration of Marriage.* The following table shows the interval between marriage and first birth for periods since 1911. In cases of multiple births, the first live-born child only is enumerated.

NUPTIAL FIRST BIRTHS: DURATION OF MARRIAGE, AUSTRALIA.

Duration of Marriage.			Annual Average.				1957.	1958.	1959.
			1911-20.	1921-30.	1931-40.	1941-50.			
NUMBER OF NUPTIAL FIRST BIRTHS.									
Under 8 months	..	..	9,312	10,351	10,677	8,822	12,554	12,825	13,685
8 months	..	..	1,562	1,530	1,417	2,104	2,190	2,191	2,182
9	"	..	3,517	3,253	2,668	4,298	4,726	4,756	4,921
10	"	..	2,877	2,907	2,202	3,447	4,010	4,055	4,088
11	"	..	2,018	2,152	1,836	2,896	3,228	3,308	3,468
Total under 1 year			19,286	20,193	18,800	21,567	26,708	27,135	28,344
1 year and under 2 years			8,563	10,133	10,595	17,762	18,697	18,205	18,398
2 years " " 3 "			2,626	3,369	4,319	8,028	7,844	7,920	7,785
3 " " " 4 "			1,230	1,743	2,214	4,361	4,382	4,354	4,328
4 " " " 5 "			700	941	1,205	2,569	2,624	2,516	2,559
5 " " " 10 "			980	1,446	1,766	3,936	4,615	4,423	4,334
10 " " " 15 "			168	240	289	501	745	705	799
15 years and over			42	55	55	94	177	173	170
Total			33,595	38,120	39,243	58,818	65,792	65,431	66,717

PROPORTION OF TOTAL NUPTIAL FIRST BIRTHS.
(Per cent.)

Under 8 months	27.72	27.15	27.21	15.00	19.08	19.60	20.51
8 months	4.65	4.01	3.61	3.58	3.33	3.35	3.27
9 "	10.47	8.53	6.80	7.31	7.18	7.27	7.38
10 "	8.56	7.63	5.61	5.86	6.09	6.20	6.12
11 "	6.01	5.65	4.68	4.92	4.91	5.06	5.20
Total under 1 year	57.41	52.97	47.91	36.67	40.59	41.48	42.48
1 year and under 2 years	25.49	26.58	27.00	30.20	28.42	27.82	27.57
2 years " " 3 "	7.82	8.84	11.01	13.65	11.92	12.10	11.67
3 " " " 4 "	3.66	4.57	5.64	7.41	6.66	6.65	6.49
4 " " " 5 "	2.08	2.47	3.07	4.37	3.99	3.85	3.84
5 " " " 10 "	2.92	3.79	4.50	6.69	7.01	6.76	6.50
10 " " " 15 "	0.50	0.63	0.73	0.85	1.13	1.08	1.20
15 years and over	0.12	0.15	0.14	0.16	0.28	0.26	0.25
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00

In 1959, the masculinity of nuptial first births was 107.04 and of total births 104.97.

(ii) *Age of Mother and Duration of Marriage.* A summary showing grouped ages and grouped durations of marriage of mothers of nuptial first-born children is given in the following table:—

NUPTIAL FIRST BIRTHS: AGE OF MOTHER AND DURATION OF MARRIAGE, AUSTRALIA, 1959.

Duration of Marriage.	Age of Mother (Years).							Total.
	Under 20.	20-24.	25-29.	30-34.	35-39.	40-44.	45 and over.	
Under 8 months	6,511	5,462	1,013	440	204	53	2	13,685
8 months	407	1,244	351	126	48	6	..	2,182
9 "	624	2,964	931	284	108	9	1	4,921
10 "	541	2,446	758	253	78	11	1	4,088
11 "	439	2,140	599	220	62	6	2	3,468
Total under 1 year	8,522	14,256	3,652	1,323	500	85	6	28,344
1 year and under 2 years	1,585	11,144	3,857	1,213	473	121	5	18,398
2 years " " 3 "	212	4,321	2,258	693	236	62	3	7,785
3 " " " 4 "	39	1,826	1,767	487	176	28	5	4,328
4 " " " 5 "	4	655	1,311	428	125	32	4	2,559
5 " " " 10 "	2	303	2,195	1,345	407	75	7	4,334
10 " " " 15 " .. ..	..	2	58	405	273	61	..	799
15 years and over .. ..	..	..	..	18	91	61	..	170
Total	10,364	32,507	15,098	5,912	2,281	525	30	66,717

(iii) *Nuptial First Births and Subsequent Births.* The following table provides a comparison between the numbers of nuptial first births and subsequent births in periods since 1911 and shows also the proportion of first to total nuptial confinements.

NUPTIAL FIRST BIRTHS AND SUBSEQUENT BIRTHS: AUSTRALIA.

Period.	Nuptial Confinements.			Proportion of First to Total Nuptial Confinements. (Per Cent.)
	First Births.	Other Births.	Total.	

ANNUAL AVERAGES.

1911-20	..	..	..	..	33,595	88,997	122,592	27.40
1921-30	..	..	..	..	38,120	88,086	126,206	30.20
1931-40	..	..	..	..	39,243	71,136	110,379	35.55
1941-50	..	..	..	..	58,818	96,994	155,812	37.75

ANNUAL TOTALS.

1955	..	..	..	..	62,238	134,679	196,917	31.61
1956	..	..	..	..	63,646	137,217	200,863	31.69
1957	..	..	..	..	65,792	142,847	208,639	31.53
1958	..	..	..	..	65,431	144,477	209,908	31.17
1959	..	..	..	..	66,717	147,145	213,862	31.20

19. *Stillbirths.*—The registration of stillbirths has been compulsory in Western Australia since 14th January, 1908; in the Australian Capital Territory since 1st January, 1930; in New South Wales since 1st April, 1935; in South Australia since 1st May, 1937; in the Northern Territory since 1st July, 1949; in Victoria from 1st January, 1953; and in Queensland from 22nd March, 1959. Though registration is not compulsory in Tasmania, it is believed that for various reasons nearly all stillbirths are registered voluntarily.

Prior to the introduction of compulsory registration in 1953 in Victoria, and in 1959 in Queensland, provision for voluntary registration existed for a number of years previously and it is believed that most stillbirths in these years were so registered.

Interstate comparisons of the figures and rates in the following tables are affected by the differences in the definitions of stillbirths adopted by the various States and only the trends in the rates for the States should be compared.

The number of stillbirths recorded in each State and Territory since 1936 is shown in the following table:—

STILLBIRTHS.

Period	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
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ANNUAL AVERAGES.

1936-40	..	1,409	854	(a)	(b) 274	234	144	(a)	5	(a)
1941-45	..	1,478	966	(c) 657	324	248	143	(a)	9	de 3,825
1946-50	..	1,405	949	626	368	274	161	(a)	12	(e) 3,795
1951-55	..	1,239	849	581	290	271	139	8	16	3,393

ANNUAL TOTALS.

1955	..	1,243	788	521	271	239	109	7	20	3,198
1956	..	1,273	819	556	274	226	122	4	22	3,296
1957	..	1,282	870	584	297	273	104	4	17	3,431
1958	..	1,208	826	548	240	225	105	5	14	3,171
1959	..	1,241	799	553	281	225	109	5	18	3,231

(a) Not available.
Queensland for 1941.

(b) Three years 1938-40.
(c) Excludes the Northern Territory.

(c) Four years 1942-45.

(d) Excludes

The incidence of stillbirths in each State and Territory as measured by the rate per 1,000 of all births, both live and still, is as follows:—

PROPORTION OF STILLBIRTHS.(a)

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
AVERAGE ANNUAL RATES.									
1936-40 ..	28.71	27.43	(b)	27.49	25.70	28.75	(b)	22.18	(b)
1941-45 ..	25.46	24.79	26.76	25.17	23.29	25.68	(b)	22.87	ef 25.25
1946-50 ..	19.99	19.64	21.87	22.12	20.46	22.26	(b)	16.35	f 20.46
1951-55 ..	16.52	15.55	18.41	15.80	16.97	17.54	17.20	17.05	16.57

ANNUAL RATES.

1955 ..	16.43	13.79	15.85	14.44	14.17	13.30	13.41	22.70	15.17
1956 ..	16.54	13.83	16.87	14.24	13.18	14.83	7.14	20.02	15.30
1957 ..	15.88	14.18	17.00	14.98	15.87	12.18	6.15	14.77	15.33
1958 ..	14.87	13.30	15.92	11.83	13.27	12.11	7.12	10.86	14.05
1959 ..	15.11	12.67	15.30	13.61	12.98	12.48	6.24	13.04	14.04

(a) Numbers of stillbirths per 1,000 of all births (live and still). (b) Not available. (c) Three years 1938-40. (d) Four years 1942-45. (e) Excludes Queensland for 1941. (f) Excludes the Northern Territory.

§ 5. Mortality.

1. Number of Deaths.—(i) Year 1960. The following table shows the number of deaths, male and female, registered in each State and Territory during the year. Stillbirths, although registered as both births and deaths in some States, are excluded from the death statistics published herein.

DEATHS, 1960.

Sex.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
Males ..	19,557	13,376	7,248	4,330	3,353	1,546	94	125	49,629
Females ..	15,473	11,171	5,122	3,474	2,344	1,124	40	87	38,835
Persons ..	35,030	24,547	12,370	7,804	5,697	2,670	134	212	88,464

(ii) Years 1926 to 1960. A summary of the number of deaths in each State and Territory from 1926 to 1960 is given in the following table. Annual averages for each five-year period from 1861 to 1950 were published in Official Year Book No. 39, page 597.

DEATHS.

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
ANNUAL AVERAGES.									
1926-30 ..	22,677	16,698	8,007	5,008	3,617	2,040	71	42	58,160
1931-35 ..	22,591	17,680	8,147	5,063	3,876	2,194	67	35	59,653
1936-40(a) ..	25,735	19,361	9,107	5,540	4,270	2,342	73	54	66,482
1941-45(a) ..	27,807	20,964	9,715	6,303	4,724	2,488	64	71	72,136
1946-50(a) ..	29,552	21,827	10,357	6,507	4,802	2,459	76	103	75,683
1951-55 ..	32,135	22,900	11,187	7,182	5,263	2,576	109	131	81,483
1956-60 ..	34,002	24,254	12,008	7,732	5,523	2,668	117	184	86,488

ANNUAL TOTALS.

1956 ..	34,064	23,886	12,186	7,593	5,572	2,513	107	167	86,088
1957 ..	33,317	24,131	11,679	7,576	5,297	2,670	115	168	84,953
1958 ..	32,350	23,625	11,455	7,743	5,554	2,708	106	182	83,723
1959 ..	35,249	25,078	12,349	7,943	5,497	2,780	124	192	89,212
1960 ..	35,030	24,547	12,370	7,804	5,697	2,670	134	212	88,464

(a) Excludes deaths of defence personnel and of internees and prisoners of war from overseas for the period September, 1939 to June, 1947.

A graph showing the number of deaths in each year from 1860 to 1960 will be found on page 343.

2. **Crude Death Rates.**—The commonest method of measuring the mortality rate is to relate the number of deaths for a given period to the mean population for that period, thus obtaining the crude death rate. This rate for a given period measures the number per thousand of population by which the population is depleted through deaths during that period. Crude death rates for each State and Territory from 1926 to 1960 are shown in the following table.

CRUDE DEATH RATES.(a)

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
AVERAGE ANNUAL RATES.									
1926-30 ..	9.26	9.56	9.06	8.83	8.91	9.44	15.83	5.36	9.26
1931-35 ..	8.68	9.72	8.62	8.72	8.83	9.63	13.46	3.81	9.00
1936-40(b) ..	9.45	10.36	9.08	9.33	9.22	9.91	11.69	4.54	9.63
1941-45(b) ..	9.73	10.63	9.24	10.26	9.86	10.21	6.43	4.98	9.96
1946-50(b) ..	9.70	10.37	9.13	9.76	9.23	9.30	6.27	5.31	9.74
1951-55 ..	9.49	9.55	8.71	9.25	8.49	8.47	6.92	(c)4.60	9.25
1956-60 ..	9.21	8.84	8.49	8.62	7.83	7.92	6.00	(c)4.33	8.78
ANNUAL RATES.									
1956 ..	9.58	9.17	8.92	8.95	8.23	7.80	5.98	(c)4.81	9.13
1957 ..	9.20	9.03	8.39	8.67	7.66	8.09	6.14	(c)4.46	8.81
1958 ..	8.76	8.62	8.10	8.63	7.87	8.02	5.51	4.43	8.50
1959 ..	9.38	8.92	8.59	8.62	7.65	8.07	6.06	4.12	8.87
1960—									
Males ..	10.20	9.19	9.71	9.04	8.95	8.38	8.00	4.50	9.55
Females ..	8.09	7.78	7.19	7.46	6.57	6.77	4.17	3.51	7.64
Persons ..	9.15	8.49	8.48	8.26	7.79	7.62	6.28	4.03	8.61

(a) Number of deaths per 1,000 of mean population. (b) Excludes deaths of defence personnel from September, 1939 to June, 1947. (c) Revised rates based on population estimates adjusted in accordance with the June, 1957 Population Count of Canberra are as follows:—1951-55, 4.58; 1956-60, 4.31; 1956, 4.72; 1957, 4.42.

A graph showing the crude death rate for each year from 1860 to 1960 will be found on page 344.

3. **Standardized Death Rates.**—(i) *General.* The death rates quoted above are crude rates, i.e., they simply show the number of deaths per thousand of mean population without taking into consideration differences in the sex and age composition of the population. Other conditions being equal, however, the crude death rate of a community will be low if it contains a large proportion of young people (not infants), and conversely it will be relatively high if the population includes a large proportion of elderly people. The foregoing table of crude death rates, therefore, does not indicate comparative incidence of mortality either as between States in the same year or in any one State over a period of years. In order to obtain a comparison of mortality rates on a uniform basis as far as sex and age constitution are concerned, "standardized" death rates may be computed. These are computed by selecting a particular distribution of age and sex as a standard, and then calculating what would have been the general death rate if the death rates for each sex and in each age group had been as recorded, but the age and sex distribution had been the same as in the standard population. For the standardized rates which follow, the standard population compiled by the International Institute of Statistics has been used. This standard is based upon the age distribution according to sex of nineteen European countries at their censuses nearest to the year 1900.

(ii) *Death Rates in Age Groups.* An examination of the age distribution of deaths and the resultant age-specific death rates is made in paragraph 8, page 362.

(iii) *Comparison of Crude and Standardized Death Rates.* The relative incidence of mortality as between individual States and as between the years 1921, 1933, 1947 and 1954 is illustrated in the following statement of crude and "standardized" death rates. These years have been chosen for comparison because the census data give essential information as to sexes and ages of the State populations. Crude death rates are shown to indicate the degree to which they disguise the true position.

CRUDE AND STANDARDIZED DEATH RATES.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Crude Death Rate(a)—							
1921	9.50	10.52	9.37	10.02	10.42	10.30	9.91
1933	8.58	9.59	8.84	8.44	8.64	9.60	8.92
1947	9.53	10.44	9.15	9.61	9.39	9.17	9.69
1954	9.46	9.19	8.64	9.01	8.38	8.67	9.10
Standardized Death Rate(b)—							
1921	10.35	10.79	10.24	10.38	11.88	10.83	10.58
1933	8.52	8.74	9.10	7.66	8.74	8.86	8.62
1947	7.44	7.31	7.47	6.77	7.28	7.21	7.34
1954	7.24	6.63	6.80	6.52	6.71	7.02	6.90

(a) Total deaths per 1,000 of mean population.
in para. 3 (i) above.

(b) See explanation of standardized death rates

The comparisons above relate to individual years in which a census of population was taken and should not be used as the basis for general conclusions as to changes in incidence of mortality for other than those years.

4. **True Death Rates.**—The main objections to standardized death rates are that the choice of a standard population is arbitrary and that the standardized rates have little value except for comparative purposes, and even then variation of the standard population may make appreciable differences. However, a correct measurement of the mortality of the population can be obtained from life tables. A life table represents the number of survivors at each age from a group of newly-born children who are subject to given mortality conditions, and from such a table the complete expectation of life at birth can be calculated. The reciprocal of this figure is known as the true death rate, since, if the complete expectation of life of a person at birth is 50 years, say, then each person will on the average die 50 years after birth, so that in a stationary population one person in 50 or 20 per thousand will die each year. The true death rate for a given period is unaffected by the particular age distribution of that period and is determined solely by the mortality experience of the period as manifested in the rate of survival from each year of age to the next. The table below sets out complete expectation of life at birth and true death rates for the periods covered by Australian life tables.

COMPLETE EXPECTATION OF LIFE AT BIRTH AND TRUE DEATH RATES:
AUSTRALIA.

Period.	Complete Expectation of Life at Birth (Years).		True Death Rate.	
	Males.	Females.	Males.(a)	Females.(b)
1881–1890	47.20	50.84	21.19	19.67
1891–1900	51.06	54.76	19.58	18.26
1901–1910	55.20	58.84	18.12	17.00
1920–1922	59.15	63.31	16.91	15.80
1932–1934	63.48	67.14	15.75	14.89
1946–1948	66.07	70.63	15.14	14.16
1953–1955	67.14	72.75	14.89	13.75

(a) Number of deaths per 1,000 males in stationary population.
females in stationary population.

(b) Number of deaths per 1,000

5. **Crude Death Rates of Principal Countries.**—The crude death rates and the true death rates of Australia and the principal countries of the world for the latest available year are shown in the table on pages 374–376 of § 7. International Vital Statistics.

6. **Australian Life Tables.**—(i) *Life Tables prior to 1954.* It has been the practice at each census from 1911 onwards to prepare Life Tables representative of the mortality experience of Australia. The mortality of the Australian population for the thirty years from 1881 to 1910 inclusive was investigated in 1911 by the Commonwealth Statistician.

Tables were compiled for each State and for Australia as a whole in respect of each sex for each of the decennial periods 1881–1890, 1891–1900 and 1901–1910. These compilations furnished a comprehensive view of Australian mortality in respect of sex, of time, and of geographical distribution, and practically superseded all Life Tables prepared in Australia prior to 1911. In addition, monetary tables based on the experience for the whole of Australia for the ten years 1901–1910 were prepared and published.

At the Census of 1921, Life Tables were prepared by the Commonwealth Statistician from the recorded census population and the deaths in the three years 1920 to 1922. In 1933 and 1947, Life Tables based on the census population and the deaths in the years 1932 to 1934 and 1946 to 1948 respectively were compiled by the Commonwealth Actuary.

(ii) *Life Tables of Census of 1954.* On the occasion of the 1954 Census, the seventh Life Tables in the series were compiled by the Commonwealth Actuary. These were based on the population recorded at the Census, adjusted to allow for variation in the net movement into Australia over the years 1953 to 1955, and deaths during these years. Full particulars of the data used, the method of construction and the tabulations of these Life Tables will be found in the report of the Commonwealth Actuary which was published by the Commonwealth Statistician in 1958. This report will also appear in Volume VIII of the detailed tables of the 1954 Census.

The main features of the tables, including comparisons with earlier Australian tables, and the latest experience in the United Kingdom and New Zealand are set out in the following summary tables.

COMPARATIVE TABLES.

1. RATES OF MORTALITY (q_x) AT REPRESENTATIVE AGES.

Age (x).				1901–10.	1920–22.	1932–34.	1946–48.	1953–55.
MALES.								
0	..	..	..	.09510	.07132	.04543	.03199	.02521
10	..	..	..	.00179	.00156	.00119	.00072	.00056
20	..	..	..	.00370	.00284	.00219	.00169	.00186
30	..	..	..	.00519	.00390	.00271	.00186	.00170
40	..	..	..	.00816	.00617	.00460	.00337	.00297
50	..	..	..	.01395	.01158	.00966	.00919	.00819
60	..	..	..	.02584	.02407	.02216	.02278	.02221
70	..	..	..	.06162	.05290	.05082	.05256	.05315
80	..	..	..	.13795	.13340	.12659	.12011	.11958
FEMALES.								
0	..	..	..	.07953	.05568	.03642	.02519	.01989
10	..	..	..	.00159	.00127	.00087	.00050	.00035
20	..	..	..	.00329	.00252	.00183	.00091	.00064
30	..	..	..	.00519	.00387	.00279	.00165	.00096
40	..	..	..	.00718	.00524	.00402	.00284	.00217
50	..	..	..	.00956	.00808	.00744	.00641	.00530
60	..	..	..	.01920	.01571	.01466	.01360	.01203
70	..	..	..	.04777	.04090	.03802	.03607	.03250
80	..	..	..	.11333	.11230	.10106	.10027	.09314

2. RATES OF MORTALITY FOR ONE PERIOD AS A PROPORTION OF THE RATES FOR THE PRECEDING PERIOD.

Age.		Males.				Females.			
		1920–22	1932–34	1946–48	1953–55	1920–22	1932–34	1946–48	1953–55
		1901–10.	1920–22.	1932–34.	1946–48.	1901–10.	1920–22.	1932–34.	1946–48.
0	..	.75	.64	.70	.79	.70	.65	.69	.79
10	..	.87	.76	.61	.78	.80	.69	.57	.70
20	..	.77	.77	.77	1.10	.77	.73	.50	.70
30	..	.75	.69	.69	.91	.75	.72	.59	.58
40	..	.76	.75	.73	.88	.73	.77	.71	.76
50	..	.83	.83	.95	.89	.85	.92	.86	.83
60	..	.93	.92	1.03	.97	.82	.93	.93	.88
70	..	.86	.96	1.03	1.01	.86	.93	.95	.90
80	..	.97	.95	.95	1.00	.99	.90	.99	.93

3. RATES OF MORTALITY FOR PERIODS SINCE 1901-10
AS A PROPORTION OF THE RATES FOR THE PERIOD 1901-10.

Age.	Males.				Females.			
	1920-22 1901-10.	1932-34 1901-10.	1946-48 1901-10.	1953-55 1901-10.	1920-22 1901-10.	1932-34 1901-10.	1946-48 1901-10.	1953-55 1901-10.
0 ..	.75	.48	.34	.27	.70	.46	.32	.25
10 ..	.87	.66	.40	.31	.80	.55	.31	.22
20 ..	.77	.59	.46	.50	.77	.56	.28	.19
30 ..	.75	.52	.36	.33	.75	.54	.32	.18
40 ..	.76	.56	.41	.36	.73	.56	.40	.30
50 ..	.83	.69	.66	.59	.85	.78	.67	.55
60 ..	.93	.86	.88	.86	.82	.76	.71	.63
70 ..	.86	.82	.85	.86	.86	.80	.76	.68
80 ..	.97	.92	.87	.87	.99	.89	.88	.82

4. NUMBER OF SURVIVORS (l_x) AT SELECTED AGES OUT OF 100,000 BIRTHS.

Age (x).	Males.				Females.			
	1920-22.	1932-34.	1946-48.	1953-55.	1920-22.	1932-34.	1946-48.	1953-55.
0 ..	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
10 ..	89,389	93,193	95,619	96,488	91,314	94,424	96,549	97,228
20 ..	87,697	91,797	94,562	95,460	89,906	93,341	95,953	96,774
30 ..	84,743	89,566	92,967	93,801	87,086	91,174	94,740	96,055
40 ..	80,813	86,539	90,823	91,861	83,279	88,175	92,758	94,715
50 ..	74,330	81,061	85,946	87,553	78,313	83,680	89,011	91,573
60 ..	63,386	69,950	74,251	76,256	70,150	75,565	81,257	84,665
70 ..	44,332	50,086	52,230	54,054	54,771	59,629	65,398	69,613
80 ..	18,614	22,223	22,785	23,658	27,170	31,539	35,401	39,633
90 ..	2,141	2,935	3,144	3,507	4,238	5,808	6,556	8,087

5. COMPLETE EXPECTATION OF LIFE (e_x^0) AT SELECTED AGES.

Age (x).	Males.				Females.			
	1920-22.	1932-34.	1946-48.	1953-55.	1920-22.	1932-34.	1946-48.	1953-55.
0 ..	59.15	63.48	66.07	67.14	63.31	67.14	70.63	72.75
10 ..	56.01	58.02	59.04	59.53	59.20	61.02	63.11	64.78
20 ..	46.99	48.81	49.64	50.10	50.03	51.67	53.47	55.06
30 ..	38.44	39.90	40.40	40.90	41.48	42.77	44.08	45.43
40 ..	30.05	31.11	31.23	31.65	33.14	34.04	34.91	36.00
50 ..	22.20	22.83	22.67	22.92	24.90	25.58	26.14	27.03
60 ..	15.08	15.57	15.36	15.47	17.17	17.74	18.11	18.78
70 ..	9.26	9.60	9.55	9.59	10.41	10.98	11.14	11.62
80 ..	5.00	5.22	5.36	5.47	5.61	6.01	6.02	6.30

6. RATES OF MORTALITY (q_x) AT SELECTED AGES FROM 1953-55 EXPERIENCE
COMPARED WITH RECENT RATES OF MORTALITY FOR
THE UNITED KINGDOM AND NEW ZEALAND.

Age (x).	Males.			Females.		
	Australia 1953-55.	United Kingdom 1950-52.	New Zealand 1950-52.	Australia 1953-55.	United Kingdom 1950-52.	New Zealand 1950-52.
0 .. ..	.02521	.03266	.02499	.01989	.02510	.01995
10 .. ..	.00056	.00052	.00050	.00035	.00035	.00028
20 .. ..	.00186	.00129	.00161	.00064	.00083	.00068
30 .. ..	.00170	.00157	.00160	.00096	.00127	.00110
40 .. ..	.00297	.00290	.00268	.00217	.00227	.00209
50 .. ..	.00819	.00850	.00727	.00530	.00524	.00552
60 .. ..	.02221	.02369	.01951	.01203	.01271	.01316
70 .. ..	.05315	.05651	.04723	.03250	.03532	.03282
80 .. ..	.11958	.13629	.11260	.09314	.10466	.09334

7. RATES OF MORTALITY FROM 1953-55 AUSTRALIAN EXPERIENCE, AS
A PROPORTION OF THE RATES FOR THE UNITED KINGDOM AND
NEW ZEALAND.

Age.	Males.		Females.	
	Australia 1953-55	Australia 1953-55	Australia 1953-55	Australia 1953-55.
	United Kingdom 1950-52.	New Zealand 1950-52.	United Kingdom 1950-52.	New Zealand 1950-52.
0 .. ..	.77	1.01	.79	1.00
10	1.08	1.12	1.00	1.25
20	1.44	1.16	.77	.94
30	1.08	1.06	.76	.87
40	1.02	1.11	.96	1.04
50 .. ..	.96	1.13	1.01	.96
60 .. ..	.94	1.14	.95	.91
70 .. ..	.94	1.13	.92	.99
80 .. ..	.88	1.06	.89	1.00

The main features of the mortality rates are:—

(a) *Male Mortality.* With the exception of ages 16 to 26 inclusive, and 69 to 73 inclusive, the 1953-55 mortality rates are less than those for 1946-48. The most significant reduction has occurred at age 0, where the mortality rate is 79 per cent. of the corresponding rate for 1946-48, and only 27 per cent. of the experience for the period 1901-1910.

The most disturbing feature of the current experience has been the increase in mortality which has occurred in the 16-26 age group. This is the result of heavier mortality from accidents of all types, which has more than counterbalanced a decrease in the rates of mortality due to other causes.

At advanced ages, the experience suggests that only a slight improvement in male mortality has occurred since 1946-48.

(b) *Female Mortality.* The comparative tables above show that very substantial decreases in female mortality rates have occurred over the whole range of ages since the 1946-48 experience. This improvement has been considerably greater overall than that for males.

Accident mortality among females, which has never been as significant as among males has increased very slightly, but this increase has been more than offset by the reduction in the mortality from other causes. There is a notable disparity between the high male accident rate and the low female rate.

In the 1946-48 experience, female mortality from causes other than accident was, in the age range 20 to 39 years, heavier than the corresponding male mortality. For 1953-55, however, the position has been reversed. At high ages the female mortality rates have shown substantially greater improvement since 1946-48 than the male rates.

7. Infant Deaths and Death Rates.—(i) States. (a) Under One Year. For each State and Territory, the number of deaths under one year of age and the rates of infant mortality during the period 1926 to 1960 were as follows:—

INFANT MORTALITY: UNDER ONE YEAR.

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
ANNUAL AVERAGES.									
1926-30 ..	2,918	1,797	918	517	431	257	5	8	6,851
1931-35 ..	1,885	1,214	690	304	329	202	6	5	4,635
1936-40 ..	1,963	1,139	718	311	352	201	6	5	4,695
1941-45 ..	2,034	1,311	804	413	347	213	7	7	5,136
1946-50 ..	1,990	1,129	770	431	370	187	11	14	4,902
1951-55 ..	1,852	1,113	730	407	384	184	17	14	4,701
1956-60 ..	1,770	1,205	717	410	362	176	25	18	4,683

ANNUAL TOTALS.									
1956 ..	1,777	1,128	737	377	384	170	24	11	4,608
1957 ..	1,804	1,219	732	403	357	170	22	10	4,717
1958 ..	1,704	1,178	657	449	360	167	22	23	4,560
1959 ..	1,832	1,320	721	422	345	202	31	16	4,889
1960 ..	1,735	1,182	740	397	366	169	26	28	4,643

AVERAGE ANNUAL RATES.(a)									
1926-30 ..	54.74	52.34	47.41	46.95	49.27	53.37	66.09	71.31	51.99
1931-35 ..	41.92	42.76	39.46	35.12	40.81	44.47	80.60	34.48	41.27
1936-40 ..	41.18	37.63	36.75	33.08	39.70	41.23	44.80	21.78	38.81
1941-45 ..	35.95	34.50	34.30	32.95	33.30	39.31	61.73	18.72	34.97
1946-50 ..	28.91	23.82	27.49	26.50	28.15	26.53	37.37	19.89	26.98
1951-55 ..	25.11	20.70	23.58	22.55	24.41	23.67	36.28	15.40	23.34
1956-60 ..	22.24	19.67	20.99	20.50	21.42	20.62	36.00	13.68	21.05

ANNUAL RATES.(a)									
1956 ..	23.47	19.32	22.74	19.88	22.70	20.98	43.17	10.21	21.72
1957 ..	22.70	20.16	21.68	20.63	21.09	20.15	34.06	8.82	21.41
1958 ..	21.29	19.23	19.40	22.40	21.52	19.49	31.56	18.04	20.49
1959 ..	22.65	21.21	20.25	20.71	20.16	23.42	38.94	11.75	21.54
1960 ..	21.16	18.46	21.01	18.94	21.62	19.09	33.46	17.69	20.16

(a) Number of deaths of children aged under one year per 1,000 live births registered.

(b) Under Four Weeks. The following table shows infant mortality rates under four weeks of age in each State and Territory during the period 1926 to 1959.

INFANT MORTALITY RATES(a): UNDER FOUR WEEKS.

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
AVERAGE ANNUAL RATES.									
1926-30 ..	29.63	29.75	27.66	26.84	25.10	33.12	14.37	28.86	28.96
1931-35 ..	27.62	27.78	27.91	22.99	25.11	30.09	35.26	23.45	27.27
1936-40 ..	27.63	25.94	26.15	21.62	22.62	29.56	28.80	16.33	26.19
1941-45 ..	24.52	24.40	24.41	20.86	20.60	27.24	33.57	12.54	23.97
1946-50 ..	20.53	17.55	19.95	18.38	19.53	19.34	21.45	15.80	19.34
1951-55 ..	17.34	15.18	17.09	14.95	17.27	16.34	19.63	11.28	16.45

ANNUAL RATES.									
1955 ..	17.31	13.49	14.84	14.11	16.00	16.82	33.01	11.62	15.49
1956 ..	16.97	14.13	16.35	13.55	15.90	14.56	30.58	7.43	15.60
1957 ..	16.39	15.02	15.22	13.77	15.13	13.63	18.58	7.06	15.36
1958 ..	15.30	14.48	13.76	13.72	14.35	12.37	17.22	11.76	14.50
1959 ..	16.37	15.22	14.61	14.03	13.79	14.84	27.63	8.81	15.31

(a) Number of deaths of children aged under four weeks per 1,000 live births registered.

(c) *Four Weeks and under One Year.* Infant mortality rates for children aged four weeks and under one year are shown in the following table for the period 1926 to 1959.

INFANT MORTALITY RATES(a): FOUR WEEKS AND UNDER ONE YEAR.

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
AVERAGE ANNUAL RATES.									
1926-30 ..	25.11	22.59	19.75	20.11	24.17	20.25	51.72	42.45	23.03
1931-35 ..	14.30	14.98	11.55	12.13	15.70	14.38	45.34	11.03	14.00
1936-40 ..	13.55	11.69	10.60	11.46	17.08	11.67	16.00	5.45	12.62
1941-45 ..	11.77	10.33	10.14	12.34	12.77	12.30	22.40	6.21	11.27
1946-50 ..	8.38	6.27	7.54	8.12	8.62	7.19	15.92	4.09	7.64
1951-55 ..	7.77	5.52	6.49	7.60	7.14	7.33	16.65	4.12	6.89
ANNUAL RATES.									
1955 ..	7.55	4.88	5.44	9.19	6.44	6.55	17.47	2.32	6.52
1956 ..	6.50	5.19	6.39	6.33	6.80	6.42	12.59	2.78	6.12
1957 ..	6.31	5.14	6.46	6.86	5.96	6.52	15.48	1.76	6.05
1958 ..	5.99	4.75	5.64	8.68	7.17	7.12	14.34	6.28	5.99
1959 ..	6.28	5.99	5.64	6.68	6.37	8.58	11.31	2.94	6.23

(a) Number of deaths of children aged four weeks and under one year per 1,000 live births registered.

(ii) *Australia. (a) Under One Year.* The fact that out of 559,474 male infants born from 1955 to 1959, 13,284 (23.74 per 1,000) died during the first year of life, while of 530,174 female infants only 10,062 (18.98 per 1,000) died during the first year, accords with the universal experience that during the first few years of life the higher death rate of male infants tends to counteract the excess of male births. Stillbirths, for which masculinity is also higher, are not included in any of the tables relating to deaths.

As shown by the following table, the disparity is greater during the first four weeks of life, termed the neonatal period, than during the remainder of the first year of life, or the post-neonatal period.

INFANT DEATHS AND MORTALITY RATES: AUSTRALIA.

Period.	Number of Deaths.						Rates.(a)											
	Neonatal— Under Four Weeks.		Post- Neonatal— Four Weeks and under One Year.		Total under One Year.		Neonatal— Under Four Weeks.		Post- Neonatal— Four Weeks and under One Year.		Total under One Year.							
	Males.	Fe- males.	Males.	Fe- males.	Males.	Fe- males.	Males.	Fe- males.	Males.	Fe- males.	Males.	Fe- males.						
ANNUAL AVERAGES.													AVERAGE ANNUAL RATES.					
1926-30	2,203	1,612	1,706	1,330	3,909	2,942	32.50	25.20	25.16	20.79	57.66	45.99						
1931-35	1,763	1,299	886	687	2,649	1,986	30.62	23.73	15.38	12.55	46.00	36.28						
1936-40	1,816	1,353	863	663	2,679	2,016	29.30	22.93	13.93	11.23	43.23	34.16						
1941-45	2,007	1,495	914	720	2,921	2,215	26.66	20.88	12.14	10.05	38.80	30.93						
1946-50	2,024	1,490	784	604	2,808	2,094	21.68	16.86	8.40	6.84	30.08	23.70						
1951-55	1,907	1,406	776	612	2,683	2,018	18.47	14.32	7.52	6.24	25.99	20.56						
ANNUAL TOTALS.													ANNUAL RATES.					
1955	1,863	1,355	762	592	2,625	1,947	17.50	13.39	7.16	5.84	24.66	19.23						
1956	1,879	1,430	704	595	2,583	2,025	17.15	13.95	6.42	5.80	23.57	19.75						
1957	1,953	1,431	740	593	2,693	2,024	17.25	13.36	6.53	5.53	23.78	18.89						
1958	1,822	1,404	767	567	2,589	1,971	15.99	12.93	6.73	5.23	22.72	18.16						
1959	2,017	1,458	777	637	2,794	2,095	17.35	13.17	6.69	5.75	24.04	18.92						

(a) Number of deaths per 1,000 male or female live births registered.

(b) *Under Four Weeks.* The following table shows particulars of infant deaths in the first four weeks of life, or the neonatal period, from 1931 to 1959. It will be seen that, for both males and females, the risk of death is very much greater during the first day of life than subsequently.

INFANT DEATHS AND MORTALITY RATES—UNDER FOUR WEEKS: AUSTRALIA.

Period.	Number of Deaths.						Rates.(a)					
	Early Neonatal.				Late Neonatal— One Week and under Four Weeks.		Early Neonatal.				Late Neonatal One Week and under Four Weeks.	
	Under One Day.		One Day and under One Week.				Under One Day.		One Day and under One Week.			
	Males.	Fe- males.	Males.	Fe- males.	Males.	Fe- males.	Males.	Fe- males.	Males.	Fe- males.	Males.	Fe- males.
ANNUAL AVERAGES.												
1931-35 ..	(b)	(b)	c 1,442	c 1,066	321	233	(b)	(b)	c 25.04	c 19.48	5.58	4.25
1936-40 ..	(b)	(b)	c 1,496	c 1,120	320	233	(b)	(b)	c 24.13	c 18.99	5.17	3.94
1941-45 ..	906	674	728	541	373	280	12.03	9.42	9.67	7.55	4.96	3.91
1946-50 ..	986	731	758	539	280	220	10.56	8.28	8.12	6.09	3.00	2.49
1951-55 ..	918	713	742	508	247	185	8.88	7.26	7.19	5.17	2.40	1.89
ANNUAL TOTALS.												
1955 ..	889	686	740	496	234	173	8.35	6.78	6.95	4.90	2.20	1.71
1956 ..	933	754	714	478	232	198	8.51	7.36	6.52	4.66	2.12	1.93
1957 ..	1,029	795	677	472	247	164	9.09	7.42	5.98	4.41	2.18	1.53
1958 ..	927	737	659	486	236	181	8.14	6.79	5.78	4.48	2.07	1.66
1959 ..	1,003	784	762	497	252	177	8.63	7.08	6.55	4.49	2.17	1.60

(a) Number of deaths per 1,000 live births registered.
under one day.

(b) Not available.

(c) Includes

The foregoing tables indicate the decrease in infant mortality in Australia, the mortality rate of children aged under one year per 1,000 live births for 1959 being 52 per cent. of the average rate for 1931-35. The improvement was due largely to the decrease in deaths from preventable causes, the mortality rate for children aged one week but under one year of age declining by 57 per cent., while that for children aged under one week declined by 40 per cent.

A graph showing infant mortality rates for each year from 1910 to 1960 will be found on page 345.

(iii) *Statistical Divisions.* The total numbers of births and of deaths of children under one year of age in each statistical division of the States are shown in the annual bulletin, *Demography*.

(iv) *Principal Countries.* Compared with other countries Australia occupies a favourable position in respect of infant mortality. In 1959, only a few countries recorded a lower rate than Australia. Rates for Australia and the principal countries of the world for the latest available year are shown in the tables on pages 374-376 of § 7. International Vital Statistics.

(v) *Causes of Death—Children under one Year.* Causes of death of children under one year of age should be considered in relation to age at death, because the emphasis on various causes changes rapidly as age at death varies. In 1959, 3,046 deaths or 62.3 per cent. of infant deaths occurred during the first week of life. Causes mainly of pre-natal and natal origin accounted for 2,883 deaths or 94.6 per cent. of these deaths (congenital malformations 397, or 13.0 per cent.; birth injury 665, or 21.0 per cent.; post-natal asphyxia and atelectasis 523 or 17.2 per cent.; immaturity unqualified, or primary to diseases other than of early infancy 932, or 30.6 per cent.). These causes accounted for 278, or 64.8 per cent. of the total of 429 deaths occurring during the second, third and fourth weeks of life, and 362, or 25.6 per cent. of the total of 1,414 deaths from four weeks and under one year of age (congenital malformations 327, or 23.1 per cent.). Causes mainly of post-natal origin accounted for 812, or 57.4 per cent. of the deaths four weeks and under one year (pneumonia and bronchitis 405, or 28.6 per cent., gastro-enteritis and diarrhoea of the newborn 100, or 7.1 per cent.).

A summary for 1959 of deaths of children under one year of age, classified according to principal causes of death and age at death, is given in the following table.

CAUSES OF DEATH: CHILDREN UNDER ONE YEAR OF AGE, AUSTRALIA, 1959.

Inter- national Statistical Classi- fication Number.	Cause of Death.	Age at Death.										Total under one year.
		Days.		Total under one week.	Weeks.			Months.				
		Under 1.	1-6.		1.	2.	3.	1-2. (a)	3-5.	6-8.	9- 11.	
	<i>Causes Mainly of Pre-Natal and Natal Origin—</i>											
750-759	Congenital malformations..	192	205	397	83	45	37	109	128	51	39	889
760, 761	Birth injury	374	291	665	21	6	3	2	1	1	..	699
762	Post-natal asphyxia and atelectasis	318	205	523	15	4	..	4	5	..	..	551
769	Attributed to maternal toxaemia	41	37	78	4	..	..	..	..	..	..	82
770	Erythroblastosis	83	45	128	4	2	..	2	1	..	..	137
771	Haemorrhagic disease of the newborn	8	43	51	3	2	..	..	..	..	..	56
773	Ill-defined diseases of early infancy	58	51	109	9	..	..	3	5	3	..	129
774-776	Immaturity alone, or primary to diseases other than of early infancy	656	276	932	29	7	4	6	2	..	..	980
	Total	1,730	1,153	2,883	168	66	44	126	142	55	39	3,523
	<i>Causes Mainly of Post-Natal Origin—</i>											
571, 764	Gastro-enteritis (including diarrhoea of newborn) ..	..	1	1	5	1	3	21	32	25	22	110
(b)	Pneumonia and bronchitis..	9	64	73	24	10	15	111	154	90	50	527
(c)	Septicaemia, skin and sub- cutaneous tissue infections, sepsis of newborn	1	10	11	8	11	4	7	9	8	4	62
057, 340	Meningococcal infections and non-meningococcal menin- gitis .. .. .	..	1	1	5	3	3	15	9	19	17	72
(d)	Causes classified as infective or mainly infective in origin not specified above	1	2	3	..	4	2	16	33	25	11	94
E921-E925	Accidental mechanical suf- focation from vomit, food, foreign body or in cot ..	..	..	..	1	1	1	28	32	11	4	78
E926, E980-E985	Lack of care, neglect, in- fanticide	8	..	8	..	..	..	2	2	..	1	13
(e)	Other accidents, poisonings and violence	1	2	3	1	1	1	7	11	21	15	60
	Total	20	80	100	44	31	29	207	282	199	124	1,016
140-239	Neoplasms	4	..	4	1	1	2	2	4	2	5	21
Residual	Other causes remaining ..	33	26	59	16	15	12	73	77	42	35	329
	All Causes	1,787	1,259	3,046	229	113	87	408	505	298	203	4,889

(a) Age four weeks and under three months. (b) 490-493, 500-502, 763. (c) 053, 690-698, 765-768. (d) 001-52, 54-56, 58-138, 391-393, 470-483, 518, 519. (e) E800-E920, E927-E979, E990-E999.

8. Age Distribution.—(i) Number of Deaths. Age at death is recorded for statistical purposes in days for the first week of life, in weeks for the first four weeks, in months for the first year and in completed years of life thereafter. These ages are usually combined in groups for publication, the most common being weeks for the first four weeks, months or groups of months for the first year, single years of age for the first five years and thereafter the five-year groups 5-9 years, 10-14 years, etc. A summary in this form for Australia is given in the following table for the year 1959.

AGE AT DEATH: AUSTRALIA, 1959.

Age at Death.	Males.	Fe- males.	Per- sons.	Age at Death.	Males.	Fe- males.	Per- sons.
Under 1 week ..	1,765	1,281	3,046	5-9 years ..	302	201	503
1 week and under 2 weeks ..	130	99	229	10-14 " ..	236	139	375
2 weeks and under 3 " ..	69	44	113	15-19 " ..	536	165	701
3 weeks and under 4 " ..	53	34	87	20-24 " ..	560	177	737
				25-29 " ..	495	227	722
				30-34 " ..	727	370	1,097
Total under 4 weeks ..	2,017	1,458	3,475	35-39 " ..	925	574	1,499
				40-44 " ..	1,188	773	1,961
				45-49 " ..	1,941	1,237	3,178
4 weeks and under 3 months	244	164	408	50-54 " ..	2,741	1,434	4,175
3 months and under 6 " ..	263	242	505	55-59 " ..	3,980	1,951	5,931
6 months and under 12 " ..	270	231	501	60-64 " ..	4,726	2,740	7,466
				65-69 " ..	6,639	4,075	10,714
Total under 1 year ..	2,794	2,095	4,889	70-74 " ..	7,198	5,388	12,586
				75-79 " ..	6,552	5,846	12,398
1 year ..	251	182	433	80-84 " ..	4,449	5,357	9,806
2 years ..	139	107	246	85-89 " ..	2,574	3,720	6,294
3 " ..	109	73	182	90-94 " ..	912	1,579	2,491
4 " ..	77	65	142	95-99 " ..	214	412	626
				100 years and over	14	27	41
Total under 5 years ..	3,370	2,522	5,892	Age not stated ..	14	5	19
				Total, All Ages ..	50,293	38,919	89,212

There are different mortality rates at various stages of life and the actual number of deaths in any period is related to the numbers living at the respective stages. Changes in the number of deaths from one period to another are associated with changes in the rate of mortality in the various age groups and by the changed proportions of persons living in the different groups.

In Australia, during the last fifty years, there has been a steady decline in the rate of mortality at all ages. This has been most pronounced at ages under one year. The increased length of life due to this factor, coupled with the long-term decline in the birth rate and the effects of past and present migration, has been a significant cause in changing the age distribution of the population and consequently the age distribution of deaths, thus obscuring the effects of declining mortality rates.

The combined effect of these various influences can be seen from the following table which shows the proportion of deaths in various age groups in ten-year periods from 1901 to 1950 and for the year 1959.

PROPORTION OF DEATHS IN EACH AGE GROUP: AUSTRALIA.
(Per Cent.)

Period.	Age at Death (Years).								Total.
	Under 1.	1-4.	5-19.	20-39.	40-59.	60-64.	65 and over.	Unspeci- fied.	
1901-10 ..	20.51	6.45	6.37	14.99	17.99	5.31	28.26	0.12	100.00
1911-20 ..	16.66	6.09	5.49	14.44	20.32	6.19	30.68	0.13	100.00
1921-30 ..	13.10	4.51	4.85	12.12	20.55	8.26	36.53	0.08	100.00
1931-40 ..	7.40	2.56	3.83	9.36	20.54	8.36	47.92	0.03	100.00
1941-50 ..	6.79	1.71	2.26	6.01	19.04	9.33	54.84	0.02	100.00
1959—									
Males ..	5.55	1.14	2.14	5.38	19.59	9.40	56.77	0.03	100.00
Females ..	5.38	1.10	1.30	3.47	13.86	7.04	67.84	0.01	100.00
Persons ..	5.48	1.12	1.77	4.55	17.09	8.37	61.60	0.02	100.00

A table showing these proportions for males and females separately for the period 1901 to 1950 was published in *Official Year Book No. 39*, page 614.

(ii) *Age-specific Death Rates.* In previous issues of the Official Year Book, average annual age-specific death rates were given for each State and Australia for the periods 1932-34, 1946-48 and 1953-55 (*see* Official Year Books, No. 37, page 778, No. 39, pages 615-6 and No. 44, pages 640-1). These rates were based on the age distribution of the population at the relevant censuses.

Intercensal estimates of the age distribution of the population are available only for Australia as a whole and not for the individual States. As a consequence, age-specific death rates for States are not available. The following table shows age-specific death rates for Australia for the years 1957, 1958 and 1959.

AGE-SPECIFIC DEATH RATES(a): AUSTRALIA.

Age Group (Years).	1957.	1958.	1959.	Age Group (Years).	1957.	1958.	1959.
0-4 ..	5.71	5.32	5.51	50-54 ..	7.85	7.82	7.74
5-9 ..	0.49	0.48	0.50	55-59 ..	12.68	12.35	12.84
10-14 ..	0.46	0.42	0.40	60-64 ..	20.16	19.50	20.16
15-19 ..	1.01	0.91	0.97	65-69 ..	31.58	30.70	31.96
20-24 ..	1.23	1.29	1.14	70-74 ..	51.24	48.37	50.31
25-29 ..	1.25	1.13	1.09	75-79 ..	78.21	77.87	81.46
30-34 ..	1.56	1.34	1.46	80-84 ..	129.84	120.80	127.57
35-39 ..	1.97	1.94	2.03	85-89 ..	202.55	211.99	216.36
40-44 ..	2.99	2.83	2.98	90 and over ..	324.21	305.07	362.74
45-49 ..	4.85	4.92	5.02				

(a) Average number of deaths per 1,000 of population in each age group.

9. *Causes of Death.*—The classification of causes of death adopted for Australia by the Commonwealth Bureau of Census and Statistics at the inception of its mortality statistics in 1907 was that introduced by the International Institute of Statistics in 1893, reviewed by that Institute in 1899, and revised by an International Commission in 1900. This classification became known as the International List of Causes of Death and further international revisions in 1909 (Second), 1920 (Third), 1929 (Fourth), 1938 (Fifth), 1948 (Sixth), and 1955 (Seventh), were successively adapted for use in Australian statistics.

The Sixth Revision of the International Statistical Classification of Diseases, Injuries and Causes of Death was used in Australia for deaths registered in 1950 to 1957. The Seventh Revision has been used for deaths registered in 1958 and subsequent years. The Sixth Revision, for the first time in connexion with the International classification, laid down rules for a uniform method of selecting the main cause to be tabulated if more than one cause is stated on the death certificate. These rules were maintained in the Seventh Revision which was concerned mainly with certain essential changes and amendment of errors and inconsistencies in the previous classification. Prior to 1950, the rules adopted in Australia for the selection of the cause of death to be tabulated were those laid down in the United States Manual of Joint Causes of Death, first published in 1914 and revised to conform with successive revisions of the International List.

The adoption of the new method, introduced with the Sixth Revision and maintained in the Seventh, marked a fundamental change in Australian cause of death statistics, emphasis now being placed on the underlying cause of death as indicated by the certifying practitioner. The introduction of this method required the adoption by all States of a form of medical certificate substantially identical with the International Form of Medical Certificate of Cause of Death as laid down in Article 9 of the World Health Organization Regulations No. 1. By 1950, all States had adopted satisfactory forms of certificate and it was possible to apply the new principles uniformly to all State cause of death records.

This change in principle affects the comparability of the statistics for 1950 and subsequent years with those for earlier years. For convenience in assessing the extent of the change and in accordance with a recommendation of the Sixth Decennial Revision Conference, causes of death for Australia for 1950 were also classified according to the detailed classification of

the Fifth Revision, on the joint cause rules current for that revision. A complete detailed classification according to both the Fifth and Sixth Revisions was shown in *Demography*, Bulletin No. 68. Commencing with 1951, the classification is according to the Sixth Revision only and from 1958, the Seventh Revision was used. Except in a few instances comparability was maintained with the introduction of the Seventh Revision. *Demography*, Bulletin No. 76, 1958, indicates the few instances in which comparability was affected by the use of the Seventh Revision.

In order to facilitate the concise presentation of cause of death statistics, the present International Classification provides two special lists of causes for tabulation—the Intermediate List of 150 causes and the Abbreviated List of 50 causes. The latter has been used as the base of the cause of death tabulations A to C which follow. Some categories have been sub-divided to show additional particulars of interest in Australian statistics. Tables A and B show deaths of males and females in age groups, respectively, for 1959 and Table C shows the total numbers of males and females who died and the death rates per million of mean population and percentage of total deaths for 1959.

A.—CAUSES OF DEATH: MALES, 1959.

ABBREVIATED LIST OF 50 CAUSES (BASED ON THE SEVENTH REVISION OF THE INTERNATIONAL LIST).

Cause of Death.(a)	Detailed List Numbers.	Age Groups (Years).										Total.
		0.	1-4.	5-14.	15-24.	25-34.	35-44.	45-54.	55-64.	65 and over.		
B 1 Tuberculosis of respiratory system	001-008	1	..	..	1	10	26	74	109	196	417
B 2 Tuberculosis, other forms	010-019	..	..	..	1	..	2	4	5	11	23
B 3 Syphilis and its sequelae	020-029	..	1	..	..	1	4	6	37	35	84
B 6 Dysentery, all forms	045-048	1	..	..	1	1	1	2	..	2	8
B 7 Scarlet fever and streptococcal sore throat	050, 051	..	..	1	..	..	..	..	..	2	3
B 8 Diphtheria	055	1	..	2	..	..	..	..	..	..	3
B 9 Whooping cough	056	7	1	..	..	..	..	..	1	..	9
B10 Meningococcal infections	057	6	11	1	2	1	..	1	2	..	24	
B12 Acute poliomyelitis	080	..	..	..	..	4	1	..	..	..	5
B14 Measles	085	..	5	2	..	..	..	..	..	2	9
B15 Typhus and other rickettsial diseases	100-108	..	..	..	..	..	..	..	1	..	1
B17 All other diseases classified as infective and parasitic	(b)	19	10	17	11	7	11	24	27	41	167	
Malignant neoplasms of:—												
Digestive organs and peritoneum	150-159	1	1	..	3	27	91	253	610	1,808	2,794	
Lung	162, 163	..	..	1	2	5	46	196	453	677	1,380
Breast	170	..	..	..	..	1	..	1	3	12	17
B18 } Genital Organs	171-179	..	1	..	5	9	13	21	80	696	825	
Urinary organs	180, 181	..	10	2	..	1	12	33	96	245	399	
Leukaemia and aleukaemia	204	4	23	32	21	23	20	40	53	90	306	
Other malignant and lymphatic neoplasms	(c)	1	25	39	40	71	130	228	278	d 596	1,408	
B19 Benign neoplasms and neoplasms of unspecified nature	210-239	5	3	6	3	12	8	7	21	19	84	
B20 Diabetes mellitus	260	..	..	1	4	9	18	39	69	294	434
B21 Anaemias	290-293	2	3	1	1	2	..	5	12	81	107	
B22 Vascular lesions affecting central nervous system	330-334	3	..	3	14	27	107	334	813	d 3,809	5,110	
B23 Non-meningococcal meningitis	340	39	6	4	4	..	3	3	2	7	68	
B24 Rheumatic fever	400-402	..	..	4	3	..	1	2	..	2	12
B25 Chronic rheumatic heart disease	410-416	..	..	3	11	22	38	70	81	104	329
B26 { Arteriosclerotic heart disease	420	..	..	..	2	44	364	1,497	3,130	d 7,641	12,678
Degenerative heart disease	421, 422	1	2	1	6	22	51	138	267	d 2,332	2,820	
B27 Other diseases of heart	430-434	5	3	3	8	10	32	90	193	1,223	1,567	
B28 Hypertension with heart disease	440-443	..	..	..	..	5	12	50	153	642	862
B29 Hypertension without mention of heart	444-447	..	..	..	3	10	28	50	79	293	463
B30 Influenza	480-483	4	9	2	7	7	19	33	60	258	399	

For footnotes see following page.

A.—CAUSES OF DEATH: MALES, 1959—continued.
ABBREVIATED LIST OF 50 CAUSES (BASED ON THE SEVENTH REVISION OF THE
INTERNATIONAL LIST)—continued.

Cause of Death.(a)	Detailed List Numbers.	Age Groups (Years).										Total.
		0.	1-4.	5-14.	15-24.	25-34.	35-44.	45-54.	55-64.	65 and over.		
B31 Pneumonia	490-493	214	86	17	21	23	51	104	226	1,253	1,995	
B32 Bronchitis	500-502	25	17	7	1	3	8	48	185	d 744	1,038	
B33 Ulcer of stomach and duodenum	540, 541	2	..	..	3	10	31	68	101	281	496
B34 Appendicitis	550-553	..	2	8	3	3	5	14	14	32	81	
B35 Intestinal obstruction and hernia	560, 561, 570	37	5	6	5	5	5	20	37	146	266	
B36 Gastritis, duodenitis, enteritis, and colitis, except diarrhoea of the newborn	543, 571, 572	62	32	5	..	3	9	9	19	80	219	
B37 Cirrhosis of liver ..	581	1	..	..	2	3	21	92	93	94	306
B38 Nephritis and nephrosis ..	590-594	1	4	6	22	34	41	93	111	261	573	
B39 Hyperplasia of prostate ..	610	..	..	..	..	..	..	5	38	480	523
B41 Congenital malformations	750-759	482	50	27	19	13	17	26	21	7	662	
B42 Birth injuries, postnatal asphyxia and atelectasis	760-762	749	..	..	..	..	..	..	..	..	749
B43 Infections of the new-born	763-768	91	..	..	..	..	..	..	..	..	91
B44 Other diseases peculiar to early infancy, and immaturity unqualified	769-776	790	2	..	..	..	..	..	..	..	792
B45 Senility without mention of psychosis, ill-defined and unknown causes	780-795	9	4	2	5	7	12	15	27 (e)	412	493	
General arteriosclerosis	450	..	..	..	..	..	..	9	58	894	961
B46 { Other diseases of circulatory system ..	451-468	3	..	2	4	8	25	53	115	344	554	
{ Other diseases of respiratory system ..	470-475, 510-527	42	18	7	5	9	19	55	177	554	886	
{ All other diseases ..	Residual	97	56	67	61	66	154	248	339	1,022	2,110	
BE47 Motor vehicle accidents	E810-E835	9	43	109	510	311	265	203	166 (e)	255	1,871	
BE48 All other accidents	E800-E802	77	141	144	216	232	226	235	183 (f)	430	1,884	
BE49 Suicide and self-inflicted injury	E840-E962	..	..	3	54	146	160	167	147 (e)	150	827
BE50 Homicide and operations of war	E963, E970-E979	..	..	..	..	..	..	..	..	..	..
{ ..	E964, E965	3	2	3	12	15	26	17	14	9	101	
{ ..	E980-E999	..	..	..	..	..	..	..	..	..	..
All Causes .. ..	..	2,794	576	538	1,096	1,222	2,113	4,682	8,706	28,566	50,293

(a) No male deaths were recorded in the following categories in 1959: B4, Typhoid Fever (040); B5, Cholera (043); B11, Plague (058); B13, Smallpox (084); B16, Malaria (110-117). (b) 030-039, 041, 042, 044, 049, 052-054, 059-074, 081-083, 086-096, 120-138. (c) All causes, 140-205, not mentioned above. (d) Includes 1, age "not stated". (e) Includes 2, age "not stated". (f) Includes 3, age "not stated".

B.—CAUSES OF DEATH: FEMALES, 1959.

ABBREVIATED LIST OF 50 CAUSES (BASED ON THE SEVENTH REVISION OF THE
INTERNATIONAL LIST).

Cause of Death.(a)	Detailed List Numbers.	Age Groups (Years).									Total.
		0.	1-4.	5-14.	15-24.	25-34.	35-44.	45-54.	55-64.	65.and over.	
B 1 Tuberculosis of respiratory system	001-008	..	1	..	..	5	19	17	13	37	92
B 2 Tuberculosis, other forms	010-019	..	2	1	..	..	1	5	4	4	17
B 3 Syphilis and its sequelae	020-029	1	..	..	..	..	..	2	4	22	29
B 4 Typhoid fever	040	..	..	..	..	..	..	1	..	1	2
B 6 Dysentery, all forms	045-048	2	1	..	1	..	1	..	..	2	7
B 7 Scarlet fever and streptococcal sore throat	050, 051	..	..	1	..	..	1	1	..	..	3
B 8 Diphtheria	055	1	1	..	..	..	..	..	..	..	2
B 9 Whooping cough	056	4	1	..	..	..	..	..	..	..	5
B10 Meningococcal infections	057	13	3	1	1	..	..	1	..	1	20
B14 Measles	085	1	6	4	..	..	..	..	..	..	11
B15 Typhus and other rickettsial diseases	100-108	..	..	..	..	..	..	..	..	1	1
B17 All other diseases classified as infective and parasitic	(b)	29	14	12	8	14	12	14	22	28	153

For footnotes see following page.

B.—CAUSES OF DEATH: FEMALES, 1959—*continued.*ABBREVIATED LIST OF 50 CAUSES (BASED ON THE SEVENTH REVISION OF THE INTERNATIONAL LIST)—*continued.*

Cause of Death.(a)	Detailed List Numbers.	Age Groups (Years).										Total.
		0.	1-4.	5-14.	15-24.	25-34.	35-44.	45-54.	55-64.	65 and over.		
B18 {	Malignant neoplasms of Digestive organs and peritoneum ..	150-159	2	..	..	2	17	87	199	408	1,635	2,350
	Lung ..	162, 163	..	..	1	1	4	14	24	46	108	198
	Breast ..	170	..	..	..	..	16	124	235	255	553	1,183
	Genital organs ..	171-179	..	1	1	3	15	100	188	257	453	1,018
	Urinary organs ..	180, 181	1	3	..	..	2	6	16	38	113	179
	Leukaemia and aleuk- aemia ..	204	..	27	38	10	14	19	23	36	82	249
B19	Other malignant and lymphatic neoplasms ..	(c)	4	8	16	14	48	71	140	182	454	937
B19	Benign neoplasms and neoplasms of unspecified nature ..	210-239	3	5	10	5	9	15	24	14	35	120
B20	Diabetes mellitus ..	260	1	1	1	2	3	11	29	103	528	679
B21	Anaemias ..	290-293	1	4	3	2	1	4	7	21	128	171
B22	Vascular lesions affecting central nervous system ..	330-334	4	5	9	12	24	129	385	781	5,452	6,801
B23	Non-meningococcal meningitis ..	340	14	9	3	2	1	2	7	4	1	43
B24	Rheumatic fever ..	400-402	..	2	6	2	4	1	3	2	..	20
B25	Chronic rheumatic heart disease ..	410-416	..	..	..	10	15	47	79	75	167	393
B26 {	Arteriosclerotic heart disease ..	420	..	..	..	1	9	69	328	997	5,370	6,774
	Degenerative heart disease ..	421, 422	2	2	4	..	12	24	55	174	d 2,745	3,018
B27	Other diseases of heart ..	430-434	6	5	3	6	10	20	40	98	e 1,103	1,291
B28	Hypertension with heart disease ..	440-443	..	..	..	..	1	10	41	123	899	1,074
B29	Hypertension without mention of heart ..	444-447	..	..	..	1	10	20	51	57	396	535
B30	Influenza ..	480-483	4	9	11	14	15	16	15	26	184	294
B31	Pneumonia ..	490-493	155	53	19	20	25	35	56	87	1,084	1,534
B32	Bronchitis ..	500-502	15	19	3	1	..	5	4	34	176	257
B33	Ulcer of stomach and duodenum ..	540, 541	..	1	..	..	7	19	22	25	109	183
B34	Appendicitis ..	550-553	..	4	11	4	1	5	3	5	21	54
B35	Intestinal obstruction and hernia ..	560, 561, 570	30	..	3	..	4	5	19	26	167	254
B36	Gastritis, duodenitis, enteritis and colitis, except diarrhoea of the newborn ..	543, 571, 572	40	18	5	2	4	2	17	15	102	205
B37	Cirrhosis of liver ..	581	2	1	..	..	1	25	35	56	(e) 54	174
B38	Nephritis and nephrosis ..	590-594	3	..	7	7	19	51	69	86	229	471
B40	Complications of pregnancy, childbirth and the puerperium ..	{ 640-652, 670-689 }	..	..	..	20	46	38	..	..	..	104
B41	Congenital malformations ..	750-759	407	46	23	7	12	17	13	11	16	552
B42	Birth injuries, post-natal asphyxia and atelectasis ..	760-762	501	1	..	..	..	..	..	..	..	502
B43	Infections of the new born ..	763-768	68	..	..	..	..	..	..	..	..	68
B44	Other diseases peculiar to early infancy, and immaturity unqualified ..	769-776	606	1	..	..	..	..	..	..	..	607
B45	Senility without mention of psychosis, ill-defined and unknown causes ..	780-795	9	8	..	..	5	6	3	18	551	600
B46 {	General arteriosclerosis ..	450	..	..	..	..	..	1	4	25	997	1,027
	Other diseases of circulatory system ..	451-468	3	..	6	7	9	15	27	52	227	346
B47 {	Other diseases of respiratory system ..	{ 470-475, 510-527 }	33	16	11	..	8	10	29	30	265	402
	Residual ..	E810-E835	68	50	33	54	76	116	227	292	1,112	2,028
BE47	Motor vehicle accidents ..	E800-E802	12	33	47	73	46	56	60	80	141	548
BE48	All other accidents ..	{ E840-E962 }	45	64	44	32	32	45	52	60	(e) 616	990
BE49	Suicide and self-inflicted injury ..	E963, E970-E979	..	..	..	13	35	63	93	47	37	288
BE50	Homicide and operations of war ..	E964, E965-E980-E999	5	2	3	5	18	10	8	2	3	56
All Causes	..	..	2,095	427	340	342	597	1,347	2,671	4,691	26,409	38,919

(a) No female deaths were recorded in the following categories in 1959: B5, Cholera (043); B11, Plague (058); B12, Acute Poliomyelitis (080); B13, Smallpox (084); B16, Malaria (110-117). (b) 030-039, 041, 042, 044, 049, 052-054, 059-074, 081-083, 086-096, 120-138. (c) All causes, 140-205, not shown above. (d) Includes 2, age "not stated". (e) Includes 1, age "not stated".

C.—CAUSES OF DEATH: AUSTRALIA, 1959.
ABBREVIATED LIST OF 50 CAUSES (BASED ON THE SEVENTH REVISION OF THE
INTERNATIONAL LIST).

Cause of Death.	Detailed List Numbers.	Number of Deaths.			Rate per 1,000,000 of Mean Population.	Percentage of Total Deaths.
		Males.	Females.	Persons.		
B 1 Tuberculosis of respiratory system ..	001-008	417	92	509	51	.57
B 2 Tuberculosis, other forms ..	010-019	23	17	40	4	.04
B 3 Syphilis and its sequelae ..	020-029	84	29	113	11	.12
B 4 Typhoid fever ..	040	..	2	2	..	.00
B 5 Cholera ..	043	..	..	..	..	..
B 6 Dysentery, all forms ..	045-048	8	7	15	1	.02
B 7 Scarlet fever and streptococcal sore throat ..	050, 051	3	3	6	1	.01
B 8 Diphtheria ..	055	3	2	5	..	.01
B 9 Whooping cough ..	056	9	5	14	1	.02
B10 Meningococcal infections ..	057	24	20	44	4	.05
B11 Plague ..	058	..	..	..	..	..
B12 Acute poliomyelitis ..	080	5	..	5	..	.01
B13 Smallpox ..	084	..	..	..	..	..
B14 Measles ..	085	9	11	20	2	.02
B15 Typhus and other rickettsial diseases	100-108	1	1	2	..	.00
B16 Malaria ..	110-117	..	..	..	..	..
B17 All other diseases classified as infective and parasitic ..	(a)	167	153	320	32	.36
B18 { Malignant neoplasms of—	Digestive organs & peritoneum	150-159	2,794	2,350	514	5.77
	Lung ..	162-163	1,380	198	1,578	157
	Breast ..	170	17	1,183	1,200	119
	Genital organs ..	171-179	825	1,018	1,843	183
	Urinary organs ..	180, 181	399	179	578	57
	Leukemia and aleukemia ..	204	306	249	555	55
	Other malignant and lymphatic neoplasms ..	(b)	1,408	937	2,345	233
	B19 Benign and unspecified neoplasms ..	210-239	84	120	204	20
	B20 Diabetes mellitus ..	260	434	679	1,113	111
	B21 Anaemias ..	290-293	107	171	278	28
B22 Vascular lesions affecting central nervous system ..	330-334	5,110	6,801	11,911	1,184	13.35
B23 Non-meningococcal meningitis ..	340	68	43	111	11	.12
B24 Rheumatic fever ..	400-402	12	20	32	3	.04
B25 Chronic rheumatic heart disease ..	410-416	329	393	722	72	.81
B26 { Arteriosclerotic heart disease ..	420	12,678	6,774	19,452	1,934	21.80
B26 { Degenerative heart disease ..	421, 422	2,820	3,018	5,838	580	6.54
	B27 Other diseases of heart ..	430-434	1,567	1,291	2,858	284
B28 Hypertension with heart disease ..	440-443	862	1,074	1,936	193	2.17
B29 Hypertension without mention of heart ..	444-447	463	535	998	99	1.12
B30 Influenza ..	480-483	399	294	693	69	.78
B31 Pneumonia ..	490-493	1,995	1,534	3,529	351	3.96
B32 Bronchitis ..	500-502	1,038	257	1,295	129	1.45
B33 Ulcer of stomach and duodenum ..	540, 541	496	183	679	68	.76
B34 Appendicitis ..	550-553	81	54	135	13	.15
B35 Intestinal obstruction and hernia ..	560, 561, 570	266	254	520	52	.58
B36 Gastritis, duodenitis, enteritis and colitis, except diarrhoea of the newborn ..	543, 571, 572	219	205	424	42	.48
B37 Cirrhosis of liver ..	581	306	174	480	48	.54
B38 Nephritis and nephrosis ..	590-594	573	471	1,044	104	1.17
B39 Hyperplasia of prostate ..	610	523	..	523	52	.59
B40 Complications of pregnancy, child birth and the puerperium ..	{ 640-652, 670-689 }	..	104	104	10	.12
B41 Congenital malformations ..	750-759	662	552	1,214	121	1.36
B42 Birth injuries, post-natal asphyxia and atelectasis ..	760-762	749	502	1,251	124	1.40
B43 Infections of the newborn ..	763-768	91	68	159	16	.18
B44 Other diseases peculiar to early infancy, and immaturity unqualified ..	769-776	792	607	1,399	139	1.57
B45 Senility without mention of psychosis, ill-defined and unknown causes ..	780-795	493	600	1,093	109	1.22
B46 { General arteriosclerosis ..	450	961	1,027	1,988	198	2.23
	Other diseases of circulatory system ..	451-468	554	346	900	90
	Other diseases of respiratory system ..	{ 470-475, 510-527 }	886	402	1,288	128
	All other diseases ..	Residual	2,110	2,028	4,138	411
BE47 Motor vehicle accidents ..	E810-E835	1,871	548	2,419	240	2.71
BE48 All other accidents ..	{ E800-E802, E840-E962 }	1,884	990	2,874	286	3.22
BE49 Suicide and self-inflicted injury ..	{ E963, E970-E979 }	827	288	1,115	111	1.25
BE50 Homicide and operations of war ..	{ E964, E965, E980-E999 }	101	56	157	16	.18
All Causes ..	..	50,293	38,919	89,212	8,868	100.00

(a) 030-039, 041, 042, 044, 049, 052-054, 059-074, 081-083, 086-096, 120-138, 160, 161, 164, 165, 190-203, 205.

(b) 140-148,

10. Deaths from Principal Causes.—(i) *General*. In the preceding tables, particulars have been given for each of the causes of death comprising the Abbreviated Classification according to the Seventh Revision of the International List. Certain important causes are treated in detail hereunder. The Abbreviated Classification numbers used in tables A to C (pp. 365–368) are indicated in parentheses for each cause or group of causes.

(ii) *All Forms of Tuberculosis (B1, B2)*. (a) *General*. The total number of deaths classified to all forms of tuberculosis in 1959 was 549, consisting of 440 males and 109 females. In comparing any of the figures for 1950 and subsequent years with those for 1949 and earlier years, consideration should be given to the effect of the change in basis from the Fifth to the Sixth Revision of the International List. This was discussed in Official Year Book No. 39, page 626.

(b) *Age at Death*. The following table shows the age groups of males and females who were classified as dying from tuberculosis in 1959, together with figures for 1921, 1931, 1941 and 1951.

TUBERCULOSIS (ALL FORMS): DEATHS IN AGE GROUPS, AUSTRALIA.

Age Group (Years).	Males.					Females.				
	1921.	1931.	1941.	1951.	1959.	1921.	1931.	1941.	1951.	1959.
0–14	143	90	63	23	1	128	81	54	35	4
15–29	477	294	162	46	2	540	487	275	68	1
30–44	718	585	428	135	38	514	422	319	142	24
45–64	692	674	793	570	192	278	252	251	126	39
65 and over ..	138	193	279	306	207	56	89	110	86	41
Not stated ..	3	..	..	..	..	..	..	..	1	..
Total ..	2,171	1,836	1,725	1,080	440	1,516	1,331	1,009	458	109

(c) *Death Rates*. The reduction in mortality from tuberculosis is shown by the decline in the crude death rate from tubercular diseases, which fell from 68 per 100,000 of mean population in 1921 (males, 78; females, 56) to 18 in 1951 (males, 25; females, 11) and still further to 5 in 1959 (males, 9; females, 2). The crude death rate does not reveal the even more striking fall in the number of deaths in the younger age groups, which can be seen from the table above.

(d) *Death Rates, Various Countries*. A comparison of the death rates from tuberculosis for Australia with those for various other countries, made on the latest figures available, shows that Australia, with a rate of 5 deaths per 100,000 of mid-year population, occupies a favourable position as regards this disease. Whereas the rate for Denmark and Netherlands is only 4, rates range as high as 51 for Portugal. For various other countries, rates are as follows:—Canada, 6; New Zealand and Union of South Africa (European population), 7; United States of America, 8; United Kingdom, 10; Switzerland, 18; Greece, 19; Italy, 21; France, 24; Finland, 33; Japan, 39.

(iii) *Malignant Neoplasms, including Neoplasms of Lymphatic and Haematopoietic Tissues (B18)*. (a) *General*. It was shown in Official Year Book No. 39, page 628, that deaths classified under this heading according to the Sixth Revision of the International List are not directly comparable in total with those on the Fifth Revision basis and comparability ratios were given to enable comparison to be made on an adjusted basis. This change must be kept in mind in considering the comparisons shown in the following pages.

(b) *Seat of Disease*. Tables showing the seat of disease in conjunction with age and conjugal condition of the persons dying from malignant neoplasms in 1959 will be found in *Demography*, Bulletin No. 77. A summary regarding seat of disease for 1959 is given below.

**DEATHS FROM MALIGNANT NEOPLASMS AND NEOPLASMS OF LYMPHATIC
AND HAEMATOPOIETIC TISSUES, AUSTRALIA, 1959.**

Seat of Disease.	Males.	Females.	Persons.
Malignant Neoplasms—			
Buccal cavity and pharynx	165	84	249
Digestive organs and peritoneum—			
Oesophagus	159	84	243
Stomach	1,041	680	1,721
Small intestine	24	12	36
Large intestine	654	830	1,484
Other	916	744	1,660
Respiratory system	1,524	235	1,759
Breast	17	1,183	1,200
Uterus .. .. .	..	608	608
Other female genital organs .. .. .	..	410	410
Male genital organs	825	..	825
Urinary organs	399	179	578
Skin	219	150	369
Other and unspecified organs	554	452	1,006
Total, Malignant Neoplasms	6,497	5,651	12,148
Neoplasms of Lymphatic and Haematopoietic Tissues—			
Lymphosarcoma and reticulosarcoma	160	111	271
Hodgkin's disease	86	45	131
Other forms of lymphoma (reticulosis)	25	17	42
Multiple myeloma (plasmocytoma)	55	40	95
Leukaemia and aleukaemia	306	249	555
Mycosis fungoides .. .. .	..	1	1
Total, Neoplasms of Lymphatic and Haema- topoietic Tissues	632	463	1,095
Grand Total	7,129	6,114	13,243

(c) *Age at Death.* The ages of males and females who died from malignant neoplasms in 1959 are given below, together with figures for 1921, 1931, 1941 and 1951. The increase in the number of deaths from malignant neoplasms in the years since 1921 is due principally to the increase in the number of people in the higher age groups, at which ages the risks of cancer are much greater. While the total population increased by about 84 per cent. between 1921 and 1959, the number of people over 55 years of age increased by about 167 per cent. The increase in the number of deaths in the lower age groups from 1951 is partly due to the inclusion of neoplasms of lymphatic and haematopoietic tissues, also it is probable that a proportion of the increased number of deaths from cancer recorded in recent years has been due to improved diagnosis and certification on the part of the medical profession.

**MALIGNANT NEOPLASMS(a): NUMBER OF DEATHS IN AGE GROUPS,
AUSTRALIA.**

Age Group (Years).	Males.					Females.				
	1921.	1931.	1941.	1951. (a)	1959. (a)	1921.	1931.	1941.	1951. (a)	1959. (a)
Under 15	26	25	21	91	140	23	23	25	71	102
15-29	29	43	49	103	114	37	38	45	76	68
30-44	163	196	176	275	406	266	326	344	387	499
45-54	387	410	465	584	772	470	548	685	692	825
55-64	800	868	983	1,334	1,573	657	744	926	1,180	1,222
65 and over	1,032	1,942	2,561	3,128	4,123	875	1,426	2,198	2,698	3,398
Not stated	3	..	..	..	1	..	..	..	..	..
Total	2,440	3,484	4,255	5,515	7,129	2,328	3,105	4,223	5,104	6,114

(a) Includes neoplasms of lymphatic and haematopoietic tissues.

(d) *Death Rates.* The death rates from malignant neoplasms have continued to rise over recent years. The rates are crude death rates representing the number of deaths from malignant neoplasms per 100,000 of mean population and do not take account of changes in the age constitution of the population, and to a substantial extent reflect the increasing age of the population rather than the true change in mortality from malignant neoplasms (see previous paragraph). In 1921, the rate for Australia was 87 (males, 88; females, 87); in 1931 it was 101 (males, 105; females, 97); in 1941 it was 119 (males 119; females, 120) and in 1951 it had risen to 126 (males, 130; females, 122). Figures for 1959 gave a rate of 132 (males, 140; females, 123).

(e) *Death Rates. Various Countries.* Death rates from malignant neoplasms per 100,000 of mean population for Australia and for various other countries are as follows:—Portugal, 87; Japan, 96; Canada, 128; Union of South Africa (European population), 130; Australia, 132; Italy, 137; United States of America (all races) and New Zealand (excluding Maoris), 149; Finland, 151; the Netherlands, 163; Switzerland, 191; France, 192; and England and Wales, 212. The rates are for the latest available year in each case.

(iv) *Diseases of the Heart (B25 to B28).* The number of deaths classified to diseases of the heart in 1959 was 30,806 (18,256 males and 12,550 females). This class is the largest amongst causes of death, the rate having increased from 112 per 100,000 of mean population in 1911–15 to 306 in 1959. The increase in the number of deaths recorded from heart diseases has been particularly pronounced during the past twenty years. The rapid increase in mortality is partly a reflection of the ageing of the population, but the figures have been influenced mainly by improved diagnosis and certification by medical practitioners.

The death rates for heart diseases for various years from 1921 were as follows:—1921, 93 (males, 102; females, 83); 1931, 159 (males, 178; females, 142); 1941, 269 (males 306; females, 231); 1951, 314 (males, 367; females, 259); and 1959, 306 (males, 359; females, 252). Deaths from heart diseases in 1959 represented 35 per cent. of the total deaths.

(v) *Puerperal Causes (B40).* It was shown in Official Year Book No. 39, page 634, that the changes introduced with the Sixth Revision of the International List did not significantly affect the comparability of the total number of deaths from puerperal causes. The Seventh Revision, introduced in 1958, did not affect comparability. The death rate from these causes (including criminal abortion) has fallen rapidly during recent years and in 1959 the rate was 0.5 per 1,000 live births, compared with a rate of 6 per 1,000 in 1936. The 104 deaths in 1959 correspond to a death rate of 2.1 per 100,000 females. The death rate may be expressed in other terms by stating that 1 of every 2,158 women giving birth to a live child in 1959 died from puerperal causes.

The death rate per 1,000 live births from puerperal causes in various countries for the latest available year is as follows:—The United States of America (all races), the Netherlands, New Zealand (excluding Maoris), Denmark and England and Wales, 0.4; Australia, 0.5; France and Canada, 0.6; Switzerland, 0.8; Finland, 1.0; Italy, 1.1; and Japan, 1.6.

Tables showing ages at marriage and at death, duration of marriage and issue, will be found in *Demography*, Bulletin No. 77.

(vi) *Causes of Infant Mortality.* See section devoted to causes of infant deaths on pages 359–362.

(vii) *Accidents, Poisonings and Violence (BE 47 to BE 50).* (a) *General.* Deaths in this class are classified according to external cause and not according to nature of injury. The classification provides sub-groups for accidents, including adverse reactions to prophylactic inoculations, therapeutic misadventures and late effects of accidental injury; suicide; homicide and injuries purposely inflicted by other persons; and injury resulting from operations of war, including delayed effects.

The following table, showing the death rates in the main sub-groups per 100,000 of mean population, indicates that the death rate from violence is generally about three times as great for males as for females. It can be seen also that in 1959 the proportion of deaths caused by violence was 7.36 per cent., compared with 6.76 per cent. in 1931–35.

The low level of the rates and proportions for the years 1941–45 is due largely to the exclusion of deaths of defence personnel from accidents, suicide and homicide, though the rates have been based on total mean population (including defence personnel). A further contributing factor is the decrease during this period in the number of automobile accidents. From July, 1947, deaths of defence personnel from accidents, etc., have again been included.

ACCIDENTS, POISONINGS AND VIOLENCE: DEATH RATES.(a)

Period.	Death Rate from—												All Violence. Proportion per 10,000 Deaths.		
	Accidents.(b)			Suicide.			Homicide.(c)			Total Violence.					
	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.
1931-35..	71	22	47	19	5	12	2	1	2	92	28	61	929	353	676
1936-40..	86	28	58	17	5	11	2	1	1	105	34	70	979	399	724
1941-45..	67	26	46	11	4	8	1	1	1	79	31	55	730	348	558
1946-50..	76	27	51	14	5	10	1	1	1	91	33	62	844	383	640
1951-55..	82	31	57	15	5	10	2	1	1	99	37	68	964	453	740
1955 ..	79	31	56	15	5	10	2	1	1	96	37	67	969	472	752
1956 ..	76	33	55	16	6	11	2	1	1	94	40	67	930	486	735
1957 ..	79	31	55	17	7	12	2	1	1	98	39	68	1,007	496	783
1958 ..	73	30	51	18	6	12	2	1	2	93	37	65	988	489	769
1959 ..	74	31	53	16	6	11	2	1	1	92	38	65	931	484	736

(a) Number of deaths per 100,000 of mean population.

(b) Includes "open verdict".

(c) Includes late effects of injuries due to operations of war.

(b) *Accidents (BE 47, BE 48).* In 1959, the total number of deaths from accidental causes was 5,293 (3,755 males and 1,538 females). Just over half of the accidental deaths were the result of transport accidents. Of these, the numbers attributable to the major causes, and the percentages of the total accidental deaths in each case, were as follows:—Motor vehicle traffic accidents, 2,310 (43.64 per cent.); motor vehicle non-traffic accidents, 109 (2.06 per cent.); other road vehicle accidents, 81 (1.53 per cent.); railway accidents, 120 (2.27 per cent.); water transport accidents, 74 (1.40 per cent.); aircraft accidents, 27 (0.51 per cent.); a total of 2,721 (51.41 per cent.). Other important causes were accidental falls, 993 (18.76 per cent.); accidental drowning, 435 (8.22 per cent.); and accidents caused by fire and explosion of combustible material, 179 (3.38 per cent.).

(c) *Suicide (BE 49).* (i) *Modes Adopted.* Deaths from suicide in 1959 numbered 1,115 (males, 827; females, 288). Firearms and explosives were used in 309 cases (27.71 per cent. of total deaths by suicide). Other important modes adopted, together with the numbers and relevant percentages, were as follows:—Poisoning other than by gases, 283 (25.38 per cent.); poisoning by gases, 172 (15.43 per cent.); hanging or strangulation, 176 (15.78 per cent.); submersion (drowning), 66 (5.92 per cent.); other modes, 109 (9.78 per cent.).

Of the 827 males who committed suicide, 297 (35.91 per cent.) used firearms or explosives. For females the most common mode was poisoning (other than by gases). This was used in 130 cases (45.14 per cent.).

(ii) *Age at Death.* The following table shows the age of persons who committed suicide in 1959.

AGE OF PERSONS WHO COMMITTED SUICIDE: AUSTRALIA, 1959.

Age Group (Years).	Males.	Females.	Persons.	Age Group (Years).	Males.	Females.	Persons.
10-14 ..	3	..	3	60-64 ..	57	22	79
15-19 ..	20	7	27	65-69 ..	75	20	95
20-24 ..	34	6	40	70-74 ..	33	6	39
25-29 ..	61	10	71	75-79 ..	23	8	31
30-34 ..	85	25	110	80-84 ..	12	2	14
35-39 ..	85	34	119	85 and over ..	5	1	6
40-44 ..	75	29	104	Not Stated ..	2	..	2
45-49 ..	88	47	135				
50-54 ..	79	46	125				
55-59 ..	90	25	115				
				Total Deaths ..	827	288	1,115

(d) *Homicide and Operations of War (BE 50).* Of the 157 deaths recorded in 1959, there were 149 deaths from homicide and injury purposely inflicted by other persons (not in war), of which assault by firearms and explosives caused 55; assault by cutting and piercing instruments 17, assault by other means 75, and injury by intervention of police 2. Deaths from injury resulting from the operations of war numbered 8, but all were deaths from late effects of such injuries.

11. *Age at Death and Average Issue of Deceased Married Males and Females.*—*Demography*, Bulletin No. 77, contains a number of tables showing, in combination with the issue, the age at marriage, age at death and occupation of married (including widowed or divorced) persons who died in Australia in 1959. Deaths of married males in 1959 numbered 37,863, and of married females, 30,723. The tables which follow deal, however, with only 37,265 males and 30,492 females, the information regarding issue in the remaining 829 cases being incomplete. The total number of children in the families of the 37,265 males was 114,230 and of the 30,492 females, 101,397. The average number of children is shown for various age groups in the following table.

AGE AT DEATH AND AVERAGE ISSUE OF DECEASED MARRIED (a) MALES AND FEMALES: AUSTRALIA.

Age at Death (Years).	Average Issue.									
	Males.					Females.				
	1921.	1931.	1941.	1951.	1959.	1921.	1931.	1941.	1951.	1959.
Under 20	0.75	..	0.43	0.71	0.77	0.66	0.79	0.83	0.53
20-24..	..	0.84	0.81	0.73	0.96	0.95	1.22	1.13	0.95	0.86
25-29..	..	1.29	1.33	1.12	1.29	1.65	1.86	1.81	1.45	1.61
30-34..	..	2.06	1.79	1.76	1.79	2.07	2.45	2.34	1.91	1.98
35-39..	..	2.58	2.13	2.11	2.12	2.40	3.29	2.89	2.30	2.49
40-44..	..	3.23	2.77	2.49	2.30	2.53	3.66	3.29	2.77	2.39
45-49..	..	3.48	3.10	2.68	2.51	2.41	3.76	3.55	2.93	2.59
50-54..	..	3.76	3.46	2.96	2.56	2.55	4.23	3.60	3.29	2.76
55-59..	..	4.41	3.69	3.28	2.71	2.55	4.69	4.01	3.55	3.03
60-64..	..	4.98	4.02	3.55	3.07	2.59	5.39	4.21	3.79	3.29
65-69..	..	5.50	4.41	3.73	3.25	2.92	5.86	4.82	4.01	3.63
70-74..	..	6.06	5.06	4.17	3.58	3.14	6.30	5.41	4.29	3.64
75-79..	..	6.66	5.65	4.56	3.83	3.42	6.56	6.02	4.85	3.96
80-84..	..	6.89	6.17	4.93	4.30	3.71	6.76	6.26	5.39	4.19
85-89..	..	7.18	6.59	5.70	4.63	4.02	6.93	6.57	5.85	4.68
90-94..	..	7.21	6.94	6.57	5.06	4.49	6.53	6.73	6.11	5.08
95-99..	..	6.97	6.69	7.04	5.78	4.91	6.05	7.10	6.34	5.76
100 and over	9.20	7.00	8.69	5.71	5.50	5.11	8.20	6.73	7.72
Age not stated	5.36	5.00	..	8.00	..	5.80	5.00	..	5.50
All Ages	4.97	4.44	3.91	3.39	3.07	5.05	4.72	4.22	3.68

(a) Includes widowed or divorced.

12. *Age at Marriage of Deceased Males and Females, and Issue.*—The following table shows the average issue of males and females according to the age at marriage of the deceased parent.

**AGE AT MARRIAGE AND AVERAGE ISSUE OF DECEASED MALES
AND FEMALES: AUSTRALIA.**

Age at Marriage (Years).	Average Issue.									
	Males.					Females.				
	1921.	1931.	1941.	1951.	1959.	1921.	1931.	1941.	1951.	1959.
Under 15 ..	..	..	..	..	3.00	7.60	6.36	7.80	4.88	5.75
15-19.. ..	6.32	6.15	5.40	4.63	4.32	6.97	6.79	6.10	5.41	5.02
20-24.. ..	6.05	5.56	4.89	4.23	3.80	5.50	5.23	4.80	4.28	3.85
25-29.. ..	5.17	4.70	4.21	3.65	3.24	4.09	3.79	3.51	3.14	2.89
30-34.. ..	4.45	3.96	3.41	3.00	2.68	2.66	2.42	2.35	2.23	2.08
35-39.. ..	3.90	3.14	2.80	2.45	2.23	1.61	1.40	1.26	1.16	1.18
40-44.. ..	2.67	2.36	2.01	1.69	1.58	0.62	0.39	0.35	0.36	0.31
45-49.. ..	2.20	1.96	1.52	1.33	0.96	0.03	0.12	0.01	0.07	0.12
50-54.. ..	1.70	1.60	1.05	0.80	0.64	..	..	..	..	0.01
55-59.. ..	1.30	0.95	0.79	0.49	0.30	..	..	..	..	..
60-64.. ..	0.33	0.63	0.29	0.24	0.24	..	..	..	..	..
65 and over ..	0.25	0.18	0.01	0.29	0.15	..	..	..	..	..
Age not stated ..	4.93	3.64	2.95	2.81	2.50	5.41	3.96	2.45	3.17	2.69
 All Ages ..	 4.97	 4.44	 3.91	 3.39	 3.07	 5.05	 4.72	 4.22	 3.68	 3.33

§ 6. Vital Statistics of External Territories.

Because of the outbreak of hostilities in the Pacific during the 1939-45 War, civil administration in the external territories was suspended on 11th February, 1942, and registration of births, deaths and marriages was not resumed until 1946. The following table for the year 1959, shows the number of marriages, births and deaths registered in the external territories under the control of Australia. More detailed information will be found in a series of tables in *Demography*, Bulletin No. 77.

VITAL STATISTICS: EXTERNAL TERRITORIES, 1959.

Territory.	Marriages.	Births.	Deaths.
Christmas Island(a)	4	102	12
Cocos (Keeling) Islands(b) .. ..	..	..	..
Norfolk Island(a)	4	13	12
Papua(c)	62	199	18
Trust Territory of New Guinea(c)	77	297	47
Trust Territory of Nauru(c) .. ..	..	12	3

(a) Total population.
population only.

(b) Excluding those registered on Home Island.

(c) Non-indigenous

§ 7. International Vital Statistics.

Vital Statistics Rates—Principal Countries.—In the following table, vital statistics rates for selected countries are shown. Crude marriage, birth and death rates represent the number of "events" reported for the year stated per 1,000 of the population. Infant mortality rates

are the number of deaths which occurred under one year of age per 1,000 live births. The true death rates (reciprocals of the expectation of life at birth) have been computed from the life tables for the respective countries as published in the United Nation's Demographic Yearbook, 1959 (See explanation of true death rates, para. 4, page 355).

In many instances the rates shown in the following table are estimates and in many cases are the results of sample surveys only. Reference should be made to the detailed comments contained in the United Nation's Demographic Yearbook, 1959 (see particularly Technical Notes on Statistical Tables and footnotes to the tables).

VITAL STATISTICS RATES—SELECTED COUNTRIES—LATEST AVAILABLE YEAR.

(Source: United Nation's Demographic Yearbook, 1959.)

Country.	Year.	Rates.(a)				Year.	True Death Rates. (b)	
		Mar- riage.	Birth.	Death.	Infant Mort- ality.		Male.	Female.
Africa—								
Union of South Africa—								
White population ..	1959	(c) 9.0	25.4	8.6	27.7	1945-47	15.7	14.6
Coloured population ..	1958	7.5	47.8	17.0	131.9	1945-47	24.0	22.7
Asiatic population ..	1958	6.8	29.5	8.2	68.4	1945-47	19.7	20.1
Belgian Congo (indigenous population) ..	1953	(d)	34.3	21.6	148	1950-52	26.6	25.0
Sudan ..	1955	(d)	51.7	18.5	93.6	..	(d)	(d)
Tanganyika ..	1947	(d)	44	25	170	..	(d)	(d)
Uganda ..	1947	(d)	42	25	200	..	(d)	(d)
Ruanda-Urundi (indi- genous population) ..	1957	(d)	49.5	15.4	(d)	..	(d)	(d)
Tunisia ..	1958	(d)	47.0	(e) 20	(f) 173	..	(d)	(d)
Guinea ..	1954	(d)	62	40	(d)	..	Persons. (d)	
Rural ..	1954	(d)	(d)	(d)	220	1954-55	32.8	
Urban ..	1954	(d)	(d)	(d)	190	1954-55	27.9	
North America—								
United States of America	1959	8.5	24.1	9.4	26.4	1957	(g) 15.1	(g) 13.8
Mexico ..	1959	6.4	47.0	11.6	73.7	1940	26.4	25.1
Canada ..	1959	7.3	27.9	8.1	(c) 30.2	1950-52	15.1	14.1
Guatemala ..	1958	4.7	48.7	21.3	103.9	1949-51	22.8	23.0
West Indies ..	1956	6.0	37.1	10.0	(f) 71.5	..	(d)	(d)
El Salvador ..	1959	6.3	45.1	11.7	79.3	1949-51	20.0	19.1
Puerto Rico ..	1959	8.6	31.6	6.8	47.9	1939-41	22.2	21.3
Costa Rica ..	1958	7.3	38.7	9.0	89.0	1949-51	18.3	17.5
South America—								
Brazil ..	1950	(d)	43	20.6	170	1940-50	25.4	22.0
Argentina ..	1959	6.8	22.6	8.0	(c) 61.1	1947	17.6	16.3
Chile ..	1958	7.2	35.5	12.1	126.8	1952	20.1	18.6
Venezuela ..	1958	5.5	44.7	9.4	64.6	..	(d)	(d)
Bolivia ..	..	(d)	(d)	(d)	(d)	1949-51	20.1	20.1
Uruguay ..	1956	7.7	11.4	7.0	73.0	..	(d)	(d)
Asia—								
China (Mainland)	1957	(d)	34	11	(d)	..	(d)	(d)
India ..	1941-50	(d)	39.9	27.4	185	1941-50	30.8	31.6
Japan ..	1958	9.0	18.0	7.5	34.6	1958	15.4	14.4
Indonesia ..	1950-54	(d)	40	20	150	..	(d)	(d)
Philippines ..	..	(d)	(d)	(d)	(d)	1946-49	20.5	18.7
Korea ..	..	(d)	(d)	(d)	(d)	1938	21.2	19.8
Thailand ..	..	(d)	(d)	(d)	(d)	1947-48	20.5	19.3
China (Taiwan)	1958	8.3	41.7	7.6	34.9	1936-41	24.3	21.9
Ceylon ..	..	(d)	(d)	(d)	(d)	1954	16.6	16.8
Nepal ..	1952-54	(d)	45	30	(d)	..	(d)	(d)
Malaya, Federation of	1958	(d)	43.2	11.0	79.6	..	(d)	(d)
Cambodia ..	..	(d)	(d)	(d)	(d)	1958-59	22.6	23.1
Hong Kong ..	1959	(d)	36.6	7.1	48.3	..	(d)	(d)
Israel (Jewish population)	1959	7.7	24.2	5.8	27.3	1958	14.4	13.8
Singapore ..	1959	(d)	40.5	6.5	35.6	..	(d)	(d)
Cyprus ..	1958	6.5	26.1	6.3	30.0	1948-50	15.7	14.5

See footnotes on following page.

VITAL STATISTICS RATES—SELECTED COUNTRIES—LATEST AVAILABLE YEAR—continued.

Country.	Year.	Rates.(a)				Year.	True Death Rates. (b)	
		Mar- riage.	Birth.	Death.	Infant Mortality.		Male.	Female.
Europe—								
Germany, Federal Republic of	1959	9.1	17.6	10.8	34.3	1949-51	15.5	14.6
United Kingdom of Great Britain and Northern Ireland ..	1958	7.6	16.8	11.7	23.3	(d)	(d)	(d)
England and Wales ..	1958	7.5	16.4	11.7	22.5	1958	14.7	13.6
Northern Ireland ..	1958	6.6	21.6	10.8	28.1	1956-58	14.8	13.9
Scotland ..	1958	8.0	19.2	12.0	27.7	1958	15.1	14.0
Italy ..	1958	7.8	18.4	9.3	44.9	1954-57	15.2	14.3
France ..	1959	7.1	18.3	11.2	25.2	1952-56	15.4	14.1
Spain ..	1959	8.5	21.9	8.7	47.4	1950	17.0	15.7
Poland ..	1958	9.2	26.2	8.4	72.8	1955-56	16.2	14.9
Yugoslavia ..	1958	9.3	23.8	9.2	86.2	1952-54	17.6	16.9
Romania ..	1958	11.7	21.6	8.7	70.5	(d)	(d)	(d)
Eastern Germany ..	1958	(d)	(d)	(d)	(d)	1956-57	15.1	14.3
Czechoslovakia ..	1959	7.6	16.0	9.7	25.8	1956	15.0	14.0
Netherlands ..	1959	7.8	21.3	7.6	16.8	1953-55	14.1	13.5
Hungary ..	1959	9.1	15.2	10.5	52.4	1955	15.4	14.5
Belgium ..	1959	7.4	17.1	11.7	(h) 30.2	1946-49	16.1	14.9
Portugal ..	1958	8.1	23.7	10.2	84.0	1957-58	16.7	15.4
Bulgaria ..	1958	9.1	17.9	7.9	52.2	1925-28	21.8	21.4
Sweden ..	1958	6.8	14.2	9.6	15.8	1956	14.1	13.4
Austria ..	1958	7.9	17.1	12.2	(h) 37.6	1949-51	16.2	14.9
Switzerland ..	1958	7.7	17.6	9.5	22.2	1948-53	15.1	14.1
Denmark ..	1958	7.2	16.6	9.2	(f) 23.4	1951-55	14.3	13.8
Finland ..	1958	7.2	18.4	8.8	(c) 24.5	1951-55	15.8	14.3
Norway ..	1959	6.5	18.0	8.9	(h) 20.5	1951-55	14.1	13.4
Ireland ..	1959	5.4	21.1	12.0	(c) 35.4	1950-52	15.5	14.9
West Berlin ..	1959	9.1	8.5	15.0	38.7	1949-51	15.7	14.6
1958								
Oceania—								
Australia ..	1958	7.5	22.6	8.5	20.5	1953-55	14.9	13.7
New Zealand ..	1958	8.0	26.6	8.9	23.4	(d)	(d)	(d)
Europeans ..	1958	(d)	(d)	(d)	(d)	1950-52	14.6	13.8
Maori ..	1958	(d)	(d)	(d)	(d)	1950-52	18.5	17.9
U.S.S.R.—								
Union of Soviet Socialist Republics ..	1958	(d)	(d)	(d)	(d)	1955-56	15.9	14.5

(a) Crude marriage, birth and death rates, i.e., number of marriages, births and deaths per 1,000 of population. Infant mortality—number of deaths of children under one year of age per 1,000 live births. (b) Number of deaths per 1,000 males and 1,000 females respectively in stationary population (see explanation on page 355). (c) 1958. (d) Not available, or available information relates to a segment of population only. (e) 1956. (f) 1954. (g) Excluding Alaska and Hawaii. (h) 1959. (i) 1957.

CHAPTER XI.

HOUSING AND OTHER NEW BUILDING.

§ 1. General.

In issues of the Official Year Book prior to No. 43 certain information relating to the housing of the population was included in various chapters, but for a more convenient presentation of the material this complete chapter, which presents a summary of all available information on the subject, has been substituted.

In § 2 of this chapter details are given of the characteristics of dwellings as obtained from censuses, § 3 outlines government assistance to housing since 1945 and operations under the War Service Homes Act 1918–1956, and a summary of new building is provided in § 4. This section includes, for the first time, statistics relating to building approvals.

§ 2. Census Dwellings.

1. General.—At each census, in addition to the questions relating to the personal particulars of the individual members of households, there have been a number of important questions on the Census Schedule designed to elicit information concerning the dwellings in which the population was housed at the date of the census. For the purpose of the census, a "dwelling" is any habitation occupied by a household group living together as a domestic unit, whether comprising the whole or only part of a building. The term has therefore a very wide reference, and includes, *in addition to houses and flats*, a great variety of dwellings ranging from a single-roomed shack to a multi-roomed hotel or institution.

2. Number of Dwellings.—(i) *Censuses 1911 to 1954.* The following table shows the number of occupied and unoccupied dwellings in Australia at each Census from 1911 to 1954. Occupied dwellings are classified into private and other dwellings. Dwellings other than private include hotels, boarding houses, lodging houses, hostels, hospitals, educational, religious and charitable institutions, defence and penal establishments, etc. The term "unoccupied dwellings" is not synonymous with vacant houses and flats available for occupancy, but refers mainly to "week-end", holiday and other dwellings whose usual occupants were temporarily absent on the night of the Census; newly-completed dwellings awaiting occupancy are also included.

DWELLINGS: AUSTRALIA, CENSUSES 1911 TO 1954.

(Excluding Dwellings occupied solely by Full-blood Aborigines.)

Census.				Occupied.			Unoccupied.
				Private.	Other than Private.	Total.	
1911	..	..	..	894,389	29,070	923,459	33,473
1921	..	..	..	1,107,010	46,275	1,153,285	51,163
1933	..	..	..	1,509,671	37,705	1,547,376	68,772
1947	..	..	..	1,873,623	34,272	1,907,895	47,041
1954	..	..	..	2,343,421	36,932	2,380,353	112,594

(ii) *Census, 1954.* The following table shows the number of occupied and unoccupied dwellings in the urban and rural areas of Australia at the Census of 30th June, 1954. (For definitions of "urban" and "rural" see para. 4, p. 291.) As explained therein, the boundaries of the Metropolitan Urban and other divisions of State differ from census to census, and consequently accurate comparison cannot be made between figures for corresponding divisions. Moreover, the inclusion in the Other Urban Division in 1954 of the larger towns not separately incorporated has further reduced comparability. These factors should be borne in mind when referring to tables in this section showing divisions of State.

Occupied dwellings are classified into private and other dwellings (see para. 3, below, for definitions of "private" and "other" dwellings). The term "unoccupied dwellings" is not synonymous with vacant houses and flats available for occupancy, but refers mainly to "week-end", holiday and other dwellings whose usual occupants were temporarily absent on the night of the Census; newly-completed dwellings awaiting occupancy are also included.

The total number of occupied dwellings in Australia at the Census of 30th June, 1954, showed an increase of 24.8 per cent. over the corresponding figure for the 1947 Census, compared with an increase of 18.6 per cent. in population. Occupied private dwellings increased by 25.1 per cent. and occupied dwellings other than private by 7.8 per cent. At the 1954 Census, 98.4 per cent. of the total occupied dwellings in Australia were private dwellings, compared with 98.2 per cent. in 1947. Proportional increases in total occupied dwellings over 1947 figures in each State and Territory were:—New South Wales 22.3 per cent., Victoria 25.3 per cent., Queensland 24.7 per cent., South Australia 27.7 per cent., Western Australia 30.5 per cent., Tasmania 26.1 per cent., Australian Capital Territory 96.9 per cent., and Northern Territory 27.1 per cent.

Unoccupied dwellings increased by 139 per cent.

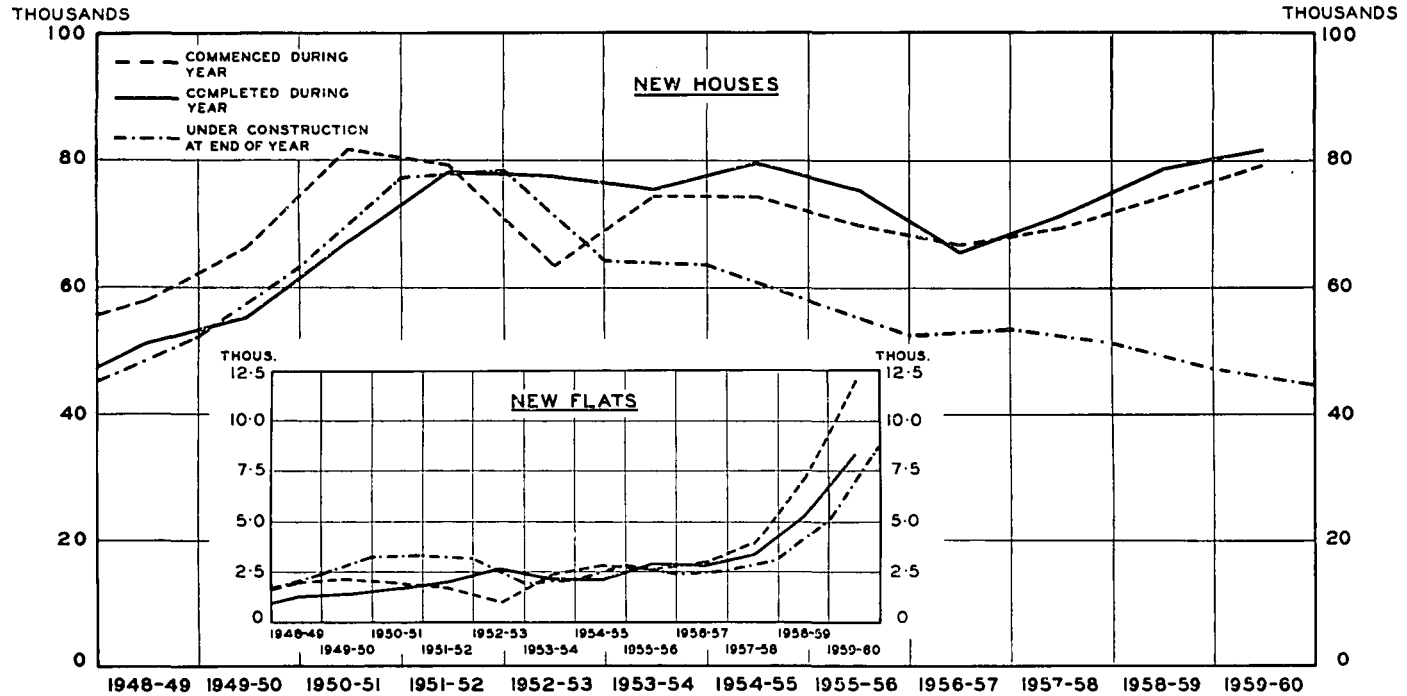
DWELLINGS: AUSTRALIA, CENSUS, 30th JUNE, 1954.

(EXCLUDING DWELLINGS OCCUPIED SOLELY BY FULL-BLOOD ABORIGINALS.)

Division.	Occupied.				Unoccupied.	
	Private.	Other than Private.	Total.		Number.	Proportion of Total. (Per Cent.)
			Number.	Proportion of Total. (Per Cent.)		
Urban—						
Metropolitan ..	1,309,188	19,203	1,328,391	55.81	32,984	29.30
Other ..	568,679	9,075	577,754	24.27	33,477	29.73
Rural ..	465,554	8,654	474,208	19.92	46,133	40.97
Total ..	2,343,421	36,932	2,380,353	100.00	112,594	100.00

NEW HOUSES AND FLATS : AUSTRALIA

1948-49 TO 1959-60



The total numbers of occupied and unoccupied dwellings in each State and Territory at the Censuses of 1947 and 1954 were as follows:—

DWELLINGS: STATES AND TERRITORIES, 1947 AND 1954.

(EXCLUDING DWELLINGS OCCUPIED SOLELY BY **FULL-BLOOD** ABORIGINALS.)

State or Territory.	Census, 30th June, 1947.		Census, 30th June, 1954.	
	Occupied.	Unoccupied.	Occupied.	Unoccupied.
New South Wales	746,343	17,392	912,877	42,831
Victoria	527,406	11,412	660,690	27,491
Queensland	272,045	9,647	339,328	21,473
South Australia	168,538	3,547	215,301	8,524
Western Australia	124,767	2,606	162,823	6,614
Tasmania	62,484	2,351	78,789	5,288
Northern Territory	2,697	34	3,427	47
Australian Capital Territory	3,615	52	7,118	326
Australia	1,907,895	47,041	2,380,353	112,594

The numbers of occupied dwellings in the External Territories at the 1954 Census were as follows:—Norfolk Island, 310; Papua, 1,605; Trust Territory of New Guinea, 3,098; Trust Territory of Nauru, 99. (The foregoing figures are exclusive of dwellings occupied solely by indigenous population.)

3. *Class of Dwelling.*—The following table shows the number of the various classes of occupied dwellings in the Metropolitan Urban, Other Urban, and Rural Areas of Australia at the Censuses of 1947 and 1954. Definitions of the several classes of dwellings are as follows:—

Private dwellings comprise private houses (including sheds, huts, garages, etc., used for dwelling purposes), shares of private houses, flats and rooms, apartments, etc. In previous censuses, dwellings returned on the Schedules as sheds, huts, garages, etc. were included with private houses. For the Census of 1954, particulars of these dwellings were tabulated separately, but have been included with private houses to preserve continuity with past census results. Separate particulars were shown in the 1947 Census publications for private houses which were shared by two or more family units and for which only one Householder's Schedule was received, but in 1954 these dwellings were included with private houses.

Share of private house is a portion of a shared private house which is occupied separately and for which portion a separate Householder's Schedule was furnished.

Flat is part of a house or other building which can be completely closed off and which includes both cooking and bathing facilities.

Other private dwelling is an apartment, room(s), etc., which is part of a building, but which is not a self-contained unit.

Dwellings other than private include hotels, boarding houses, lodging houses, hostels, hospitals, educational, religious and charitable institutions, defence and penal establishments, etc.

It is desirable, when considering the question of housing, to exclude those forms of accommodation which do not represent the normal housing conditions associated with family life, and the statistics which follow relate mainly to private dwellings only.

OCCUPIED DWELLINGS ACCORDING TO CLASS, AUSTRALIA, 1947 AND 1954.

(EXCLUDING DWELLINGS OCCUPIED SOLELY BY FULL-BLOOD ABORIGINALS.)

Class of Occupied Dwelling.	Census, 30th June, 1947.				Census, 30th June, 1954.				Increase, 1947-54.
	Urban.(a)		Rural. (a)	Total, Aus- tralia.	Urban.(a)		Rural. (a)	Total, Aus- tralia.	
	Metro- politan.	Other.			Metro- politan.	Other.			
Private House(b)— House Shed, Hut, etc. ..	760,678	289,898	567,476	1,618,052	{ 1,067,674 14,259	506,128 12,276	433,069 22,613	2,006,871 49,148	} 437,967
Total									
	760,678	289,898	567,476	1,618,052	1,081,933	518,404	455,682	2,056,019	437,967
Share of Private House(c) Flat Other	72,724 94,822 33,263	19,627 12,697 3,855	13,660 3,880 1,043	106,011 111,399 38,161	77,344 104,603 45,308	22,747 20,784 6,744	7,125 2,033 714	107,216 127,420 52,766	1,205 16,021 14,603
Total Private Dwellings	961,487	326,077	586,059	1,873,623	1,309,188	568,679	465,554	2,343,421	469,798
Caretaker's Quarters .. Licensed Hotel .. Boarding House, etc. .. Educational Institution Religious Institution (non-educational) .. Hospital Charitable Institution (other than Hospital) Other	1,110 1,586 15,302 449 85 543 206 552	279 1,776 3,367 290 21 368 72 293	352 2,854 2,512 389 42 593 128 1,003	1,741 6,316 21,181 1,128 148 1,504 406 1,848	998 1,720 14,110 523 142 559 299 852	264 2,457 4,120 488 31 517 107 1,091	194 2,015 1,041 251 24 353 104 4,672	1,456 6,192 19,271 1,262 197 1,429 510 6,615	-285 -124 -1,910 134 49 -75 104 4,767
Total Dwellings Other than Private ..	19,933	6,466	7,873	34,272	19,203	9,075	8,654	36,932	2,660
Total Occupied Dwell- ings	981,420	332,543	593,932	1,907,895	1,328,391	577,754	474,208	2,380,353	472,458
Total Occupied Dwell- ings per square mile	711.92	121.89	0.20	0.64	592.88	123.44	0.16	0.80	0.16
Wagon, Van, etc. (in- cluding campers-out)	847	1,029	3,997	5,873	2,693	3,605	5,383	11,681	5,808

(a) See letterpress on p. 291 regarding comparability between Censuses. (b) Includes shared private houses for which only one Householder's Schedule was received. (c) Portion of a shared private house which was occupied separately and for which portion a separate Householder's Schedule was received.

NOTE.—Minus sign (—) denotes decrease.

4. Population According to Class of Dwelling, etc.—The following table shows the number of the various classes of occupied dwellings at the Censuses of 1947 and 1954, together with the number of inmates therein.

Of the total population in 1954, 92.52 per cent. were living in private dwellings—houses, flats, apartments, rooms, etc.—whilst 672,168 persons, or 7.48 per cent. of the population, spent the night in other than private dwellings, or on ships, trains or aircraft or were camping out.

OCCUPIED DWELLINGS, ETC. AND INMATES, AUSTRALIA, 1947 AND 1954.

(EXCLUDING FULL-BLOOD ABORIGINALS AND DWELLINGS OCCUPIED SOLELY BY THEM.)

Particulars.	Census, 30th June, 1947.			Census, 30th June, 1954.		
	Number of Dwellings.	Inmates.		Number of Dwellings.	Inmates.	
		Number.	Proportion of Total. (Per Cent.)		Number.	Proportion of Total. (Per Cent.)
Private House(a)—						
House	1,618,052	6,323,621	83.43	{ 2,006,871 49,148	7,448,978 134,187	82.89 1.49
Shed, Hut, etc.						
Total	1,618,052	6,323,621	83.43	2,056,019	7,583,165	84.38
Share of Private House(b) ..	106,011	303,996	4.01	107,216	290,579	3.23
Flat	111,399	316,115	4.17	127,420	329,265	3.67
Other	38,161	83,028	1.10	52,766	111,353	1.24
Total Private Dwellings ..	1,873,623	7,026,750	92.71	2,343,421	8,314,362	92.52
Dwellings Other than Private	34,272	520,204	6.86	36,932	618,743	6.89
Total Occupied Dwellings ..	1,907,895	7,546,964	99.57	2,380,353	8,933,105	99.41
Wagon, Van, etc.	5,873	13,791	0.18	11,681	30,056	0.33
Migratory(c) .. .. .	..	18,603	0.25	..	23,369	0.26
Total .. .. .	..	7,579,358	100.00	..	8,986,530	100.00

(a) Includes shared private houses for which only one Householder's Schedule was received.

(b) Portion of a shared private house which was occupied separately and for which portion a separate Householder's Schedule was received.

(c) Shipping, railway and air travellers.

5. Occupied Private Dwellings.—(i) *Material of Outer Walls.* In the following table, occupied private dwellings are classified according to the material of which the outer walls were built.

Wood has been the most extensively used material in the construction of the outer walls, followed by brick and fibro cement, and in 1954 the respective proportions for Australia for occupied private dwellings for which the material of the outer walls was specified were—wood, 44.4 per cent., brick, 33.5 per cent. and fibro cement, 12.7 per cent. The latter has shown a most spectacular increase since 1933, when the proportion was 1.6 per cent. (23,696 dwellings), compared with 6.3 per cent. in 1947 (117,631 dwellings). The proportions of both brick and wooden dwellings have shown small decreases since 1947. The numbers of dwellings of all other materials except fibro cement and concrete have decreased. Brick dwellings in 1954 represented 51.5 per cent. of all occupied private dwellings in the Metropolitan Urban Divisions, while in the Other Urban and Rural Divisions wooden dwellings predominated, the percentages of such dwellings being 60.0 per cent. and 59.4 per cent. respectively.

OCCUPIED PRIVATE DWELLINGS CLASSIFIED ACCORDING TO MATERIAL OF OUTER WALLS, AUSTRALIA, 1947 AND 1954.

(EXCLUDING DWELLINGS OCCUPIED SOLELY BY FULL-BLOOD ABORIGINALS.)

Material of Outer Walls.	Census, 30th June, 1947.				Census, 30th June, 1954.				Increase, 1947-54.
	Urban.(a)		Rural. (a)	Total, Aus- tralia.	Urban.(a)		Rural. (a)	Total, Aus- tralia.	
	Metro- politan.	Other.			Metro- politan.	Other.			
Brick ..	551,618	60,215	38,179	650,012	674,165	86,254	25,089	785,508	135,496
Stone ..	36,714	13,409	37,573	87,696	35,907	18,049	33,604	87,560	- 136
Concrete ..	10,442	5,411	13,283	29,136	24,299	13,497	13,639	51,435	22,299
Wood ..	315,567	204,863	364,221	884,651	422,010	341,145	276,584	1,039,739	155,088
Iron, Tin ..	6,087	14,498	45,347	65,932	7,387	19,652	31,177	58,216	- 7,716
Fibro Cement..	31,924	23,586	62,121	117,631	140,542	84,835	71,176	296,553	178,922
Calico, Canvas, Hessian ..	656	1,539	13,255	15,450	426	1,843	5,446	7,715	- 7,735
Other ..	4,430	1,774	9,902	16,106	3,644	2,686	7,750	14,080	- 2,026
Not Stated ..	4,049	782	2,178	7,009	808	718	1,089	2,615	- 4,394
Total ..	961,487	326,077	586,059	1,873,623	1,309,188	568,679	465,554	2,343,421	469,798

(a) See letterpress on p. 291 regarding comparability as between Censuses.

NOTE.—Minus sign (—) denotes decrease.

(ii) *Number of Rooms.* For Census purposes, the kitchen and any permanently enclosed sleep-out were included in the number of rooms in the dwelling, but the bathroom, pantry, laundry and storehouse were excluded unless generally used for sleeping.

Excluding houses with rooms unspecified, private houses of four, five and six rooms represented 78.3 per cent. of the total number of private houses in Australia at 30th June, 1954, compared with 79.2 per cent. in 1947, and three-quarters of the total increase in the number of private houses since 1947 consisted of houses containing these numbers of rooms. Houses of seven and more rooms also showed substantial increases.

For details of the number of rooms in Metropolitan Urban, Other Urban, and Rural Areas see Official Year Book No. 46, pages 378-9.

OCCUPIED PRIVATE DWELLINGS CLASSIFIED ACCORDING TO NUMBER OF ROOMS, AUSTRALIA, 1947 AND 1954.

(EXCLUDING DWELLINGS OCCUPIED SOLELY BY FULL-BLOOD ABORIGINALS.)

Number of Rooms(a) per Dwelling.	Census, 30th June, 1947.					Census, 30th June, 1954.				
	Private House. (b)	Share of Private House. (c)	Flat.	Other.	Total Private Dwell- ings.	Private House. (b)	Share of Private House. (c)	Flat.	Other.	Total Private Dwell- ings.
1 ..	30,509	13,305	1,173	12,379	57,366	24,052	12,129	769	16,336	53,286
2 ..	32,449	25,427	7,076	14,745	79,697	45,117	23,761	7,333	18,675	94,886
3 ..	76,718	26,944	24,838	6,723	135,223	87,137	25,716	27,270	9,955	150,078
4 ..	349,894	20,778	43,430	2,495	416,597	380,138	19,284	49,548	4,250	453,220
5 ..	542,504	11,493	23,689	631	578,317	692,044	12,728	27,701	1,520	733,993
6 ..	383,786	4,982	8,016	252	397,036	534,420	7,663	10,752	687	553,522
7 ..	122,880	1,539	1,817	40	126,276	181,312	2,788	2,525	218	186,843
8 ..	43,167	457	567	9	44,200	64,092	1,130	806	100	66,128
9 ..	15,135	152	173	1	15,461	22,430	341	244	47	23,062
10 and over ..	14,464	88	100	..	14,652	20,808	163	98	18	21,087
Not Stated ..	6,546	846	520	886	8,798	4,469	1,513	374	960	7,316
Total Private Dwellings ..	1,618,052	106,011	111,399	38,161	1,873,623	2,056,019	107,216	127,420	52,766	2,343,421
Average number of Rooms per Private Dwelling ..	5.12	3.16	4.06	2.07	4.88	5.26	3.38	4.14	2.22	5.04

(a) Includes kitchen and permanently enclosed sleep-out but does not include bathroom, pantry, laundry or storehouse, unless generally used for sleeping.

(b) Includes houses, sheds, huts, etc., and shared private houses for which only one Householder's Schedule was received.

(c) Portion of a shared private house which is occupied separately and for which portion a separate Householder's Schedule was received.

(iii) *Number of Inmates.* A classification of occupied private dwellings according to the number of inmates is shown in the following table.

For Australia as a whole, private houses with four inmates were most numerous, followed very closely by those with two and three inmates in that order.

An increase of nearly 51 per cent. (149,348 houses) in the number of private houses occupied by two inmates brought this group from third position in 1947 to second position in 1954. Houses with two inmates in 1954 constituted 22 per cent. of the total number of occupied private houses in Australia, about the same proportion as for houses with four inmates. In 1947, houses with two inmates constituted 18 per cent. of the total and houses with four inmates 21 per cent. Houses with three inmates constituted 21 per cent. at both the 1947 and 1954 Censuses. The average number of inmates in private houses was 3.69 in 1954, compared with 3.91 in 1947.

The number of private houses which were shared, and for each share of which a separate Householder's Schedule was furnished, increased slightly between 1947 and 1954, but the average number of inmates therein decreased from 2.87 to 2.71. Separate particulars of shared houses for which only one Householder's Schedule was furnished were not compiled in 1954. These particulars are included with private houses in all tables in this section.

Flats and other classes of private dwellings increased in both numbers and total inmates, but the average number of inmates fell from 2.84 to 2.58 for flats and from 2.18 to 2.11 for others.

In flats, those with two inmates, and in other classes of occupied private dwellings, those with one inmate, predominated.

For details of number of occupants in Metropolitan Urban, Other Urban and Rural Areas see Official Year Book No. 46, pages 380-1.

OCCUPIED PRIVATE DWELLINGS CLASSIFIED ACCORDING TO NUMBER OF INMATES, AUSTRALIA, 1947 AND 1954.

(EXCLUDING DWELLINGS OCCUPIED SOLELY BY FULL-BLOOD ABORIGINALS.)

Number of Inmates per Dwelling.	Census, 30th June, 1947.					Census, 30th June, 1954.				
	Private House. (a)	Share of Private House. (b)	Flat.	Other.	Total Private Dwellings.	Private House. (a)	Share of Private House. (b)	Flat.	Other.	Total Private Dwellings.
1	108,055	16,870	13,744	13,360	152,029	147,308	22,082	22,507	21,191	213,088
2	294,831	34,039	38,337	13,020	380,227	444,179	35,626	49,303	16,678	545,786
3	342,394	26,198	30,024	6,843	405,459	435,679	22,920	29,351	7,904	495,854
4	346,935	15,378	17,838	2,944	383,095	446,687	14,258	16,468	4,185	481,598
5	239,091	7,180	7,168	1,224	254,663	291,706	6,673	6,335	1,578	306,292
6	137,882	3,409	2,612	424	144,327	154,691	3,171	2,263	654	160,779
7	73,795	1,645	1,035	201	76,676	72,955	1,429	796	294	75,474
8	40,567	862	424	96	41,949	35,243	704	256	160	36,363
9	16,664	244	122	27	17,057	14,268	207	92	67	14,634
10 and over ..	17,838	186	95	22	18,141	13,303	146	49	55	13,553
Total Private Dwellings ..	1,618,052	106,011	111,399	38,161	1,873,623	2,056,019	107,216	127,420	52,766	2,343,421
Total Inmates ..	6,323,621	303,996	316,115	83,028	7,026,760	7,583,165	290,579	329,265	111,353	8,314,362
Average number of inmates per Private Dwelling ..	3.91	2.87	2.84	2.18	3.75	3.69	2.71	2.58	2.11	3.55

(a) Includes houses, sheds, huts, etc., and shared private houses for which only one Householder's Schedule was received. (b) Portion of a shared private house which is occupied separately and for which portion a separate Householder's Schedule was received.

(iv) *Nature of Occupancy.* At the 1954 Census, 52.5 per cent. of occupied private houses in Australia, for which particulars were supplied, were occupied by owners, 16.8 per cent. by purchasers by instalments, 28.1 per cent. by tenants, and 2.6 per cent. by others. The corresponding percentages in 1947 were—owners, 50.5 per cent; purchasers by instalments, 9.0 per cent; tenants, 37.6 per cent; and others, 2.9 per cent. Owner-occupied houses in Australia increased by 33.4 per cent. between 1947 and 1954, and those being purchased by instalments by 139.3 per cent., the increase in these two groups combined being nearly 50 per cent., while tenant-occupied houses decreased by 4.1 per cent.

For details of nature of occupancy in Metropolitan Urban, Other Urban and Rural Areas see Official Year Book No. 46, pages 382-3.

Tenants occupied by far the greater proportion of flats and other private dwellings.

OCCUPIED PRIVATE DWELLINGS CLASSIFIED ACCORDING TO NATURE OF OCCUPANCY, AUSTRALIA, 1947 AND 1954.

(EXCLUDING DWELLINGS OCCUPIED SOLELY BY FULL-BLOOD ABORIGINALS.)

Nature of Occupancy.	Census, 30th June, 1947.					Census, 30th June, 1954.				
	Private House. (a)	Share of Private House. (b)	Flat.	Other.	Total Private Dwellings.	Private House. (a)	Share of Private House. (b)	Flat.	Other.	Total Private Dwellings.
Owner	805,402	21,133	10,680	810	838,025	1,074,696	28,772	15,974	2,372	1,121,814
Purchaser by Instalments	143,594	3,472	503	108	147,677	343,625	7,099	1,816	553	353,093
Tenant (Governmental Housing)(c)	598,573	79,025	98,708	36,444	812,750	91,968	560	4,935	1,913	99,376
Tenant	25,563	721	776	286	27,346	481,813	67,964	103,142	46,935	699,854
Caretaker	25,563	721	776	286	27,346	25,307	772	888	460	27,427
Other Methods of Occupancy	20,571	371	360	219	21,521	27,285	869	435	241	28,830
Not Stated	24,349	1,289	372	294	26,304	11,325	1,180	230	292	13,027
Total Private Dwellings	1,618,052	106,011	111,399	38,161	1,873,623	2,056,019	107,216	127,420	52,766	2,343,421

(a) Includes houses, sheds, huts, etc., and shared private houses for which only one Householder's Schedule was received. (b) Portion of a shared private house which is occupied separately and for which portion a separate Householder's Schedule was received. (c) These figures were compiled from the answers furnished in response to the instruction on the Householder's Schedule "Tenant paying rent to a Government Authority to write 'Tenant (G)'".

(v) *Weekly Rent.* (a) *All Tenanted Private Dwellings.* The following table shows tenanted private dwellings in Australia classified according to weekly rent (unfurnished). For details of weekly rent in the Metropolitan Urban, Other Urban and Rural Areas see Official Year Book No. 46, pages 384-5.

Information tabulated concerning rents was restricted to the actual rent paid per week by tenants for unfurnished private dwellings. Particulars of rents shown in the following tables are therefore on an *unfurnished* basis. Dwellings shown as rent "Not Stated" include those whose rents were shown on Householders' Schedules on a *furnished* basis, and those whose rents were not applicable (e.g., for shop and dwelling combined). In this section, information on "tenanted private dwellings" relating to the 1954 Census

excludes particulars of dwellings occupied by "Tenants" (Governmental Housing) in each State, i.e., those who furnished answers in response to the instruction on the Census Householder's Schedule "Tenant paying rent to a Government Authority to write 'Tenant (G)'". For the Australian Capital Territory and the Northern Territory, particulars of all tenanted private dwellings are included. Particulars for the 1947 Census relate throughout to all tenanted private dwellings.

TENANTED PRIVATE DWELLINGS CLASSIFIED ACCORDING TO WEEKLY RENT (UNFURNISHED), AUSTRALIA, 1947 AND 1954.

(EXCLUDING DWELLINGS OCCUPIED SOLELY BY FULL-BLOOD ABORIGINALS.)

Weekly Rent (Unfurnished).	Census, 30th June, 1947.				Census, 30th June, 1954.(a)				
	Private House. (b)	Share of Private House.(c)	Flat.	Total Tenanted Private Dwellings (d)	Private House. (b)	Share of Private House.(c)	Flat.	Other.	Total Tenanted Private Dwellings.
Under 5s. . .	6,836	299	25	7,247	1,841	126	50	102	2,119
5s. and under 10s. . .	25,608	2,629	198	29,023	9,753	560	84	167	10,564
10s. " " 15s. . .	67,391	7,497	1,074	77,248	25,594	2,067	316	588	28,565
15s. " " 20s. . .	84,875	7,246	2,719	96,787	33,904	2,207	741	716	37,568
20s. " " 25s. . .	112,216	10,123	7,421	132,055	60,497	5,075	2,305	1,554	69,431
25s. " " 30s. . .	94,927	8,057	10,152	114,763	56,339	4,080	4,254	1,465	66,138
30s. " " 35s. . .	64,630	6,010	14,483	86,149	58,978	6,123	7,773	1,893	74,767
35s. " " 40s. . .	27,970	2,471	13,229	44,143	35,641	2,848	9,414	1,062	48,965
40s. " " 50s. . .	19,002	1,816	14,972	36,147	50,869	5,827	18,180	1,815	76,691
50s. " " 60s. . .	5,573	500	5,698	11,896	22,487	2,963	11,874	1,061	38,385
60s. " " 70s. . .	2,172	162	2,278	4,661	14,770	1,830	6,980	686	24,266
70s. " " 80s. . .	786	51	1,059	1,917	6,584	685	3,561	324	11,154
80s. " " 90s. . .	496	11	631	1,144	3,751	481	2,370	182	6,784
90s. " " 100s. . .	216	9	273	499	1,279	137	1,352	70	2,838
100s. and over . . .	466	10	679	1,155	3,636	316	3,523	177	7,652
Not Stated . . .	85,409	32,134	23,817	167,916	100,253	32,756	30,607	35,087	198,703
Total Tenanted Private Dwellings . .	598,573	79,025	98,708	812,750	486,176	68,081	103,384	46,949	704,590
Average Weekly Rent (Unfurnished) per Private Dwelling . .	22s. 8d.	22s. 0d.	36s. 7d.	24s. 2d.	32s. 2d.	34s. 2d.	50s. 6d.	36s. 2d.	35s. 0d.

(a) The figures shown for 1954 exclude dwellings occupied by "Tenants" (Governmental Housing), except those in the Northern Territory and the Australian Capital Territory. (b) Includes houses, sheds, huts, etc., and shared private houses for which only one Householder's Schedule was received. (c) Portion of a shared private house which is occupied separately and for which portion a separate Householder's Schedule was received. (d) Includes "other private dwellings" not shown in the table.

At the 1947 Census, nearly 83 per cent. of the tenanted private houses in Australia shown in the table above had weekly rentals of between 10s. and 35s.; at the 1954 Census, only 61 per cent. were within these limits. In 1947, 6 per cent. had rentals below 10s. and 11 per cent. above 35s. In 1954, 3 per cent. had rentals below 10s. and 36 per cent. above 35s. At the 1947 Census, 88 per cent. of the flats shown for Australia had rentals of between £1 and £3 a week, 5 per cent. were below this range, and 7 per cent. above it. At the 1954 Census, the corresponding proportions were:—74 per cent., 2 per cent. and 24 per cent. Dwellings whose rents were not stated were excluded in obtaining these proportions.

The average rentals shown in this table for all tenanted private dwellings in Australia at the 1954 Census were 45 per cent. higher than in 1947 (42 per cent. higher for houses and 38 per cent. higher for flats). Metropolitan rentals in 1954 were higher by 40 per cent., 35 per cent. and 38 per cent., respectively, than in 1947.

In all such comparisons as these, the difference in basis between the 1947 and 1954 Censuses, referred to in the opening paragraph above, and also the differences in the Urban and Rural divisions (*see p. 291*), should be borne in mind.

(b) *Tenanted Private Houses of Three to Six Rooms.* The comparisons in the following table, restricted to houses of three to six rooms, with outside walls of wood, brick or stone, are of particular interest, since this group comprises more than three-quarters of all tenanted private houses in Australia.

AVERAGE WEEKLY RENT^(a) PER ROOM OF TENANTED PRIVATE HOUSES, THREE TO SIX ROOMS, WITH WALLS OF WOOD, BRICK OR STONE, AUSTRALIA, 1947 AND 1954.

(EXCLUDING DWELLINGS OCCUPIED SOLELY BY FULL-BLOOD ABORIGINALS.)

Particulars.	Census, 30th June, 1947.				Census, 30th June, 1954.				Increase, 1947-54. (Aus- tralia.)
	Urban.		Rural.	Total, Aus- tralia.	Urban.		Rural.	Total, Aus- tralia.	
	Metro- politan.	Other.			Metro- politan.	Other.			
Private Houses(a) with Walls of—	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
Wood—									
3 rooms	5 1	5 1	3 10	4 7	7 3	7 11	5 10	7 1	2 6
4 "	5 0	4 7	3 5	4 4	6 9	7 0	4 10	6 4	2 0
5 "	4 9	4 3	3 3	4 2	6 8	6 4	4 6	6 1	1 11
6 "	4 5	3 10	2 11	3 10	5 10	5 5	3 11	5 3	1 5
3 to 6 rooms ..	4 9	4 3	3 3	4 1	6 6	6 3	4 6	5 11	1 10
Brick or Stone—									
3 rooms	5 7	5 7	4 5	5 6	8 3	9 4	6 8	8 3	2 9
4 "	5 9	5 0	3 8	5 7	7 10	7 2	5 1	7 8	2 1
5 "	5 6	4 9	3 8	5 3	7 2	6 8	4 9	7 0	1 9
6 "	5 4	4 6	3 6	5 1	6 9	6 1	4 3	6 6	1 5
3 to 6 rooms ..	5 6	4 9	3 8	5 4	7 3	6 8	4 9	7 1	1 9
Wood, Brick or Stone—									
3 rooms	5 5	5 3	3 11	5 1	7 11	8 4	6 0	7 9	2 8
4 "	5 6	4 8	3 6	5 0	7 6	7 1	4 11	7 1	2 1
5 "	5 3	4 4	3 4	4 9	7 0	6 5	4 6	6 6	1 9
6 "	5 0	4 1	3 1	4 6	6 5	5 7	4 0	5 11	1 5
3 to 6 rooms ..	5 3	4 5	3 4	4 9	7 0	6 5	4 7	6 7	1 10

(a) Rents relate to tenanted private houses (one family) in 1947 and to tenanted private houses, excluding those occupied by "Tenants" (Governmental Housing) in each State, in 1954.

The average rent of 3- to 6-roomed tenanted private houses of wood, brick or stone increased by about 40 per cent. between 1947 and 1954 (wood by 46 per cent. and brick by 34 per cent.). The average for 3-roomed tenanted houses of wood, brick or stone increased by about 53 per cent., 4-roomed houses by about 42 per cent., 5-roomed houses by about 39 per cent., and 6-roomed houses by 33 per cent. The increases in respect of houses of wood were higher than those for brick or stone in each case. The increases in the Metropolitan Areas were relatively lower than for Australia as a whole.

(vi) *Date of Building.* The numbers of occupied private dwellings in Australia at the Census of 30th June, 1954, classified according to date of building, were as follows:—Built before 30th June, 1947, 1,758,448; 1st July–31st December, 1947, 19,742; 1948, 60,360; 1949, 63,897; 1950, 78,965; 1951, 85,852; 1952, 91,712; 1953, 88,467; 1954, 44,725; built after 30th June, 1947 but particular year not stated, 19,641; not stated, 31,612; total, 2,343,421.

(vii) *Facilities, etc.* At the 1947 Census, a detailed question was asked concerning facilities, and a summary of the information obtained therefrom was published on page 571 of Official Year Book No. 38. The question asked at the 1954 Census was much less detailed, and was designed partly to clarify replies to the question on class of dwelling. Information obtained in reply to this question and to that on farm dwellings in 1954 was not compiled.

§ 3. Government Assistance to Housing since 1945.

1. **Agreements between the Commonwealth and State Governments.**—(i) *The 1945 Agreement.* In November, 1945, the Commonwealth Government entered into an agreement with the Governments of the States whereby the Commonwealth Government would provide finance for, and the State Governments would undertake the building of, housing projects. Tasmania withdrew from the Agreement in August, 1950 and South Australia did not begin to operate under it until July, 1953. *The Agreement expired on 30th June, 1956.* Features of the 1945 Commonwealth and State Housing Agreement were:—

- (a) The Commonwealth Government agreed to advance to each participating State the amount expended for the construction of housing projects between 3rd December, 1943, and the date of the Agreement, and the amount required for the State's housing projects during a further period of ten years.
- (b) Each advance of money was to be repaid with interest thereon in equal annual instalments within a maximum period of 53 years from the date the advance was made, the interest to be at a rate not exceeding that payable in respect of the latest Commonwealth loan at the date of the advance.
- (c) Rents charged were to be economic rents, i.e., the rents were to be sufficient to meet repayments by the State to the Commonwealth of the capital cost of each dwelling with interest, and of current outgoings such as the cost of maintenance, administration, rates and taxes and insurance.
- (d) The rental provisions of the Agreement provided for a system of rental rebates, whose basic principle was that a family with an income at the basic wage level did not need to pay more than one-fifth of its income in rent, regardless of the economic rent of the dwelling.
- (e) The Commonwealth Government was to bear three-fifths, and the State concerned two-fifths, of all cash losses sustained by the States, on an annual basis.

The following table shows the amount of money advanced to each State under the 1945 Agreement:—

**1945 COMMONWEALTH AND STATE HOUSING AGREEMENT: ADVANCES
TO STATES.**

(£'000.)

Year.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Total.
1945-46	2,525	3,100	425	..	460	285	6,795
1946-47	5,530	4,000	750	..	735	..	11,015
1947-48	5,345	5,000	800	..	1,260	900	13,305
1948-49	6,295	5,200	900	..	1,647	450	14,492
1949-50	6,600	6,300	1,250	..	1,965	1,100	17,215
1950-51	7,890	8,600	2,700	..	2,350	100	21,640
1951-52	8,514	10,061	4,489	..	3,483	..	26,547
1952-53	12,100	11,270	3,730	..	2,900	..	30,000
1953-54	12,450	12,000	4,500	4,500	3,750	..	37,200
1954-55	10,800	9,450	1,800	3,600	3,500	..	29,150
1955-56	10,800	10,800	3,000	3,600	5,000	..	33,200
Total ..	88,849	85,781	24,344	11,700	27,050	2,835	240,559

The number of dwellings erected in each State under the 1945 Agreement is shown in the following table:—

1945 COMMONWEALTH AND STATE HOUSING AGREEMENT: NUMBER OF DWELLINGS(a) COMPLETED.

Year.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Total.
1945-46	1,589	1,768	224	..	293	154	4,028
1946-47	2,200	1,458	470	..	537	208	4,873
1947-48	2,582	2,231	547	..	849	218	6,427
1948-49	3,440	2,357	573	..	976	184	7,530
1949-50	3,076	2,454	643	..	981	284	7,438
1950-51	3,273	2,699	554	..	1,269	82	7,877
1951-52	3,708	2,970	1,082	..	1,023	..	8,783
1952-53	4,280	3,238	1,635	..	1,111	..	10,264
1953-54	5,109	3,590	1,506	1,006	1,472	..	12,683
1954-55	4,932	3,960	1,382	2,013	2,031	..	14,318
1955-56	3,529	4,152	840	1,885	1,531	..	11,937
Total ..	37,718	30,877	9,456	4,904	12,073	1,130	96,158

(a) Includes flats.

Initially, houses constructed under the 1945 Commonwealth and State Housing Agreement could be sold to tenants, provided the tenant was able to arrange payment of the full purchase price of the house to the State Authority immediately on sale. Under this arrangement sales to tenants were relatively few. In April, 1955, the Commonwealth and the States entered into a supplementary agreement whereby the State Governments were permitted to sell houses to tenants on terms. These were:—deposit, 5 per cent. of the first £2,000 and 10 per cent. of the balance of the purchase price of the house, the maximum amount of the remaining balance being limited to £2,750 and repayment of the balance to be made over a maximum period of 45 years at an interest rate of $4\frac{1}{2}$ per cent. a year. Tenants eligible under the War Service Homes Act were entitled to purchase houses built under the Agreement on the terms provided in that Act. The number of houses sold under the Agreement is as follows:—

1945 COMMONWEALTH AND STATE HOUSING AGREEMENT: HOUSES SOLD.

Year.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Total.(a)
1947-48 .. ..	..	..	109	..	..	109
1948-49	15	..	63	..	..	78
1949-50	98	6	12	..	115	231
1950-51	122	39	94	..	508	763
1951-52	338	26	86	..	480	930
1952-53	528	13	13	..	309	863
1953-54	403	6	16	1	94	520
1954-55	165	..	26	7	96	294
1955-56	733	1,289	121	275	177	2,595
1956-57	1,538	1,363	93	66	101	3,161
1957-58	769	1,050	137	54	94	2,104
1958-59	485	1,053	85	47	61	1,731
1959-60	451	983	111	26	49	1,620
Total ..	5,645	5,828	966	476	2,084	14,999

(a) Tasmania did not operate under the 1945 Agreement after August, 1950.

(ii) *The 1956 Agreement.* In 1956, the Commonwealth and the States entered into a new agreement, under which added emphasis was placed on the construction of homes for private ownership. Features of the agreement are:—

- (a) The Commonwealth Government is providing finance to the States over a period of five years ending 30th June, 1961, for the erection of housing projects.
- (b) For the first two years of the agreement, 20 per cent. of the money allocated to each State was advanced to building societies and other approved institutions for lending to private house builders. During the remaining three years of the agreement this proportion is 30 per cent.
- (c) The remaining 70 per cent. (first two years, 80 per cent.) of the allocation to each State may be used by the States for the erection of houses for either rental or sale. The States determine the type of houses to be erected, their location and the selection of tenants. They also fix the terms of selling.
- (d) The Commonwealth may specify that a portion, not exceeding 5 per cent., in any one year, of the moneys referred to in (c) above, be set aside for the erection of houses for serving members of the defence forces nominated by the Commonwealth. The Commonwealth provides supplementary advances to the States equal to the amounts set aside by them for this purpose.
- (e) Each advance of money and interest thereon is to be repaid in equal annual instalments over a period of 53 years from the date each advance is made. The rate of interest chargeable on advances is the long term bond rate, less three quarters of one per cent. when the bond rate does not exceed $4\frac{1}{2}$ per cent. per annum, and, less one per cent. when the bond rate exceeds $4\frac{1}{2}$ per cent. per annum. The effective interest rate during the first four financial years of this agreement (1956–57 to 1959–60) was 4 per cent. per annum.

The following table shows progress made under the 1956 Housing Agreement during 1959–60:—

1956 COMMONWEALTH AND STATE HOUSING AGREEMENT, 1959-60.

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Total.
Advances to States .. £'000	12,350	10,300	3,480	5,000	3,000	1,950	36,080
Supplementary Advances (Service Housing) .. £'000	432	360	122	92	49	7	1,062

STATE HOUSING PROGRAMME.

Allocation of Advances (70 per cent.) .. £'000	8,645	7,200	2,436	3,500	2,100	1,365	25,246
Dwellings—							
Commenced ..	2,707	2,513	895	1,871	681	429	9,096
Completed(a) ..	3,351	2,594	730	1,605	643	430	9,353
Under construction at 30th June, 1960 ..	1,664	1,337	410	1,361	243	225	5,240
Sold ..	2,250	1,690	475	114	280	464	5,273

SERVICE HOUSING.

Funds Allocated(b) .. £'000	865	720	244	184	97	14	2,124
Agreed Programme (Number of dwellings) ..	262	205	79	67	34	4	651
Dwellings completed(c) ..	209	202	66	49	30	4	560

HOME BUILDERS' ACCOUNT.

Allocation of Advance (30 per cent.) .. £'000	3,705	3,100	1,044	1,500	900	585	10,834
Amount drawn by Institutions ..	4,100	3,489	1,156	1,530	928	684	11,887
Dwellings—							
Approved ..	1,081	1,055	269	371	304	144	3,224
Commenced ..	978	1,066	294	426	298	141	3,203
Completed ..	937	(d) 1,330	297	516	313	210	3,603
Purchased—							
New Dwellings ..	414	314	193	197	54	42	1,214
Other ..	34	..	..	..	..	6	40

(a) Includes Service Housing. (b) 50 per cent. by Commonwealth and 50 per cent. by State.
(c) Included in State Housing Programme above. (d) Includes purchased dwellings which have been completed during 1959–60.

Advances made by the Commonwealth Government to the States, and the number of houses sold since the beginning of the 1956 Agreement are shown in the following table:—

1956 COMMONWEALTH AND STATE HOUSING AGREEMENT: ADVANCES AND HOUSES SOLD.

Year.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Total.
ADVANCES TO STATES (£'000).							
1956-57	10,800	10,000	2,750	3,600	3,000	2,000	32,150
1957-58	11,000	10,000	3,160	4,000	3,000	2,000	33,160
1958-59	12,000	10,300	3,310	5,000	3,000	2,200	35,810
1959-60	12,350	10,300	3,480	5,000	3,000	1,950	36,080
Total	46,150	40,600	12,700	17,600	12,000	8,150	137,200

SUPPLEMENTARY ADVANCES (SERVICE HOUSING) (£'000).							
1956-57	432	400	110	111	111	25	1,189
1957-58	440	400	126	159	15	35	1,175
1958-59	420	360	116	175	103	20	1,194
1959-60	432	360	122	92	49	7	1,062
Total	1,724	1,520	474	537	278	87	4,620

NUMBER OF HOUSES SOLD.							
1956-57	1,659	373	306	165	175	224	2,902
1957-58	2,910	286	548	205	614	454	5,017
1958-59	2,022	1,454	647	205	205	315	4,848
1959-60	2,250	1,690	475	114	280	464	5,273
Total	8,841	3,803	1,976	689	1,274	1,457	18,040

2. **Imported Houses.**—With the object of supplementing the number of houses being constructed by the building industry within Australia, the Commonwealth Government in 1950 sponsored a plan to import prefabricated houses from overseas. Under this plan, the Commonwealth paid subsidy amounting to £4,193,700 on 13,979 houses imported by State Authorities. A total of 18,182 houses were imported and erected, including 4,167 imported by the Commonwealth Government and erected by the Commonwealth Department of Works and the Snowy Mountains Hydro-Electric Authority. Imports of houses under this scheme ceased in January, 1954.

3. **Housing Schemes in Commonwealth Territories.**—(i) *Northern Territory.* In 1946, control of all Government-owned residences in the Territory (excluding those belonging to the Defence Services, Commonwealth Railways or attached to post offices) was vested in the Administration. The Administration provides houses for rental to Commonwealth employees.

(a) In 1953, a Housing Scheme was inaugurated under which potential house builders may obtain loans of up to £2,750 for the erection of houses, the purchase or extension of existing houses or the discharge of mortgages on houses. Up to 31st October, 1960, 590 loans had been approved. These were for:—new houses, 438; extensions to existing houses and/or discharge of mortgages, 43; purchase of existing houses, 109.

- (b) In January, 1959, an Ordinance was passed to set up a Housing Commission to construct houses for letting at an economic rental to low income groups. At 22nd July, 1960, the first 20 Housing Commission homes were completed at Alice Springs.
- (c) The Administration is prepared to sell to its tenants the houses they occupy for cash or on terms with a minimum deposit of 5 per cent. of the first £2,000, and 10 per cent. of the balance. The maximum advance by mortgage is £2,750. Repayment is over a maximum of 45 years, and interest is at present 4½ per cent.

(ii) *Australian Capital Territory.* The Commonwealth Government provides houses primarily for rental to employees of Government organizations and to persons privately employed in the Australian Capital Territory.

From 1st July, 1945, to 30th June, 1960, 7,459 houses and flats were erected for the Department of the Interior for letting.

Government rental houses may be purchased by tenants and the basis of sale is a minimum deposit of 10 per cent. of the purchase price fixed by the Department of the Interior with no limit to the amount which may be held on mortgage. Repayment may be made over a maximum period of 45 years on all types of houses. Interest charged on loans is 4½ per cent. per annum. Since 1950, 1,642 houses have been sold to tenants.

Loans may be granted by the Commissioner for Housing to enable persons to purchase, erect or enlarge houses in the Territory or to discharge mortgages. Where the Commissioner's valuation of the property concerned does not exceed £2,000 the maximum loan may not exceed 95 per cent. of the valuation. If the Commissioner's valuation exceeds £2,000 the maximum loan is 95 per cent. of the first £2,000 and 90 per cent. of the balance (but in no case can the amount lent exceed £2,750). Repayment may be made over a maximum period of 45 years. The current rate of interest is 5½ per cent. per annum. From 1st July, 1950 to 30th June, 1960, 842 loans were granted.

(iii) *Papua and New Guinea.* The Housing Loans Ordinance 1953 permits the advance of loans of up to £2,750 to any member of the community for the erection of a house or the purchase or extension of an existing house. The loans are limited to declared township areas and are repayable over a maximum period of 35 years. The effective rate of interest is 5 per cent. per annum. Up to 30th June, 1960, 143 loans totalling £323,483 had been approved.

In 1960, the Administration started a project for providing 50 low-cost houses for rental to indigenes and mixed-bloods. These houses were completed during August, 1960, and an additional 20 houses are under construction.

4. *Other Housing Schemes in the States.*—(i) *General.* In each State, the major Government housing schemes operated by the State Housing Authorities are those provided for under the Housing Agreements between the Commonwealth and State Governments referred to earlier. Other State Government assistance to housing is referred to in the following paragraphs.

(ii) *New South Wales.* The principal schemes operating in New South Wales are:—

- (a) *Commission-Financed Advances.* Under the Housing Act 1912-55, the Housing Commission is empowered to provide finance to persons to have houses erected on their own land, to purchase existing dwellings, or to effect improvements or repairs to houses. In respect of advances made under the Act prior to 1952, the maximum amount that could be lent was limited to £1,540, repayment of which could be made over a maximum period of 45 years. Interest charged was at the rate of 4½ per cent. a year. Under this scheme, 786 houses were erected while a further 106 houses were erected by the Housing Commission on Commission land and sold, under this section of the Act, to approved applicants. Regulations prescribing the present maximum amount that may be advanced and the limitation on income which may be received by an applicant for a loan have not been published and at present no advances or sales are being made.

(b) *Rental Housing (other than Housing Agreements).*

- (1) Upon request by other State Departments, the Housing Commission will erect houses for employees of those Departments, e.g., Education, Agriculture, Water Conservation, etc. These Departments provide the necessary land and funds needed to finance the erection of the houses. Rentals charged are fixed by the Departments in accordance with the salaries of the officers occupying the houses. The number of rental houses erected (other than under the Housing Agreements) is 843.
- (2) Specially designed units are erected by the Housing Commission to provide dwellings for elderly persons at rentals within their means. The rents of these units are £1 per week for elderly single persons and £1 10s. per week for elderly couples. One hundred and seven of these units are now completed.

(c) *Sales Scheme.*

- (1) During 1953–54, the Housing Commission began the erection of 100 houses for sale. Under this scheme, the Commission acted as the construction authority while administrative arrangements were carried out by the Rural Bank. Houses were sold on the basis of 10 per cent. deposit with repayment of the balance over a maximum period of 40 years. Construction of all houses has been completed.
- (2) Applicants who have established eligibility for Housing Commission accommodation may now apply to have a standard type dwelling erected on their own block of land. Terms of repayments are the same as for the 1956 Agreement dwellings, i.e. a minimum deposit of £50 with a maximum repayment period of 45 years with interest at $4\frac{1}{2}$ per cent. Under this scheme 12 dwellings have been completed.

(iii) *Victoria. (a) Home Finance Trust.* In 1956, a Home Finance Trust was established with the object of receiving money from institutions and others in order to make loans for the erection or purchase of houses. Applicants for loans must declare that they intend to use the houses as homes for themselves, their families and dependants. Except in special circumstances, no loan will be granted if the borrower or wife or husband of the borrower already owns a house in Victoria at the date of the proposed mortgage.

Loans granted are on the basis of a first mortgage over the house. Loans are not to exceed 95 per cent. of the value of the security (house and land) and are not made if the value of the security exceeds £4,500. In the case of purchase, the house must not have been erected more than two years before the date of the mortgage. Repayment of loans may be made over a maximum period of 30 years, with interest charges determined by the Trust. At 30th June, 1960, 1,485 loans totalling £4,059,875 had been made.

(b) *Housing of Aborigines.* Under the Aborigines Act 1958 as amended by Aborigines (Housing) Act 1959, the Housing Commission of Victoria is empowered to erect houses for the Aborigines Welfare Board for occupation as dwellings by aborigines.

During the financial year 1959–60, the Commission erected thirteen houses for this purpose.

(iv) *Queensland.* The following housing schemes are operating in this State:—

- (a) *Queensland Housing Commission.* The Queensland Housing Commission was established in 1945 to take over the operation of the State Advances Corporation which had been set up in 1916 to make advances to home builders under the State Advances Act. The Commission was given increased powers to assist in meeting the existing housing shortage, and was empowered, as well as to make advances to private house builders, to build houses itself either for sale or for letting, under the State Housing Acts, 1945 to 1957. A person to be eligible must be the proprietor of a suitable building site, must not already own a dwelling and must undertake to use the completed dwelling as a home for himself and family. The present maximum advances allowable under the Acts are £3,000 for a timber-frame building, £3,100 for a brick veneer and £3,350 for a brick or concrete building. The rate of interest on advances is $5\frac{1}{2}$ per cent. a year. Repayment may be made at the option of the borrower over either a 30-year or a 45-year period. A borrower or purchaser who elects to repay over a 30-year period, who is under 40 years of age, and who has passed a prescribed medical examination, is entitled to free life insurance cover in an amount sufficient to liquidate his indebtedness to the Commission in the event of his death before his loan has been fully repaid, provided that the maximum benefit

payable under such insurance cover does not exceed £2,250. Since the post-war revival of housing in 1944-45, to 30th June, 1960, 22,374 houses were completed under all schemes administered by the Commission. Of the completed houses, 12,029 are being acquired under home-ownership schemes and 10,345 are for rental.

- (b) *Workers' Dwellings.* The maximum advances under this scheme were increased to £3,000 for a timber dwelling, £3,100 for a brick veneer, and £3,350 for a brick or concrete dwelling from 19th May, 1960. During 1959-60, 512 workers' dwellings were erected. Since the inception of this scheme in 1910 to 30th June, 1960, 26,711 dwellings have been completed, and total advances made for those dwellings amounted to £21,308,863.
- (c) *Workers' Homes.* Workers' homes are erected by the Queensland Housing Commission under the Workers' Homes Act 1919-1957. These homes are intended for persons who are not the owners of building sites, and applications are confined to persons with a net annual income for taxation purposes of not more than £800. The Housing Commission builds the home to suit the applicant's needs, on Crown Land, or on land purchased for the purpose which is then converted to perpetual leasehold tenure. An applicant pays a deposit of 5 per cent. of the purchase price of the home and the balance by monthly rent over a term of 30 to 45 years. The rate of interest is 5½ per cent. a year. The number of houses constructed under this Act up to 30th June, 1960, was 2,347.

(v)**South Australia.* In South Australia, the Housing Trust builds houses for both rental and sale and, in addition, administers an emergency dwelling scheme for the South Australian Government. From July, 1946 to 30th June, 1960, 37,487 houses were erected by the Trust in both city and country areas.

- (a) *Rental Houses.* In the main, houses built for rental by the Trust are built with funds provided under the Housing Agreement. However, 50 houses were completed during 1959-60 with funds made available by the State Government to assist people in country towns who cannot afford to pay an economic rent and 44 single unit houses built with funds outside the Agreement were let at Elizabeth.

Upon request by State Government Departments the Trust will erect houses for purchase by those Departments for the accommodation of their employees. During the financial year 1959-60, 163 houses were built for Education, Police, Highways and Woods and Forests Departments, etc. Rents for the houses are determined by the Public Service Board. Rents charged for other accommodation are generally based on the overall cost of construction, and vary not only according to the size of the dwelling but also to date of erection. As at 1st November, 1960, the rents of 5-roomed houses (i.e., 3 bedrooms) ranged from £2 2s. a week for houses of an older type to £3 7s. 6d. a week for houses then being completed. Factors taken into consideration when allotting rental houses include date of application, housing need and suitability of tenant. Persons with high incomes are asked to consider purchasing their own homes.

- (b) *Sales Scheme.* Houses built under this scheme, which was inaugurated in 1946, are of solid or timber-frame construction. More than 18,000 have been completed in both metropolitan and country areas since the scheme began. When houses are sold, the usual practice is for the Trust to recover the total cost of the house and land by the purchaser paying the total amount in cash or (as is usually the case) paying a deposit (which varies according to the type of house and locality—at present £350 for a timber-frame house and £550 for a 5-roomed brick house—and the purchaser's ability to pay) and raising the balance by way of mortgage. In cases where the deposit and first mortgage are insufficient, the Trust may advance the balance by way of a second mortgage, the repayment term of which is a maximum of 30 years, interest being at the rate of 5½ per cent. a year. In 1956, the Trust began the erection of houses, which may be of solid or timber-frame construction or a mixture of both, for individuals on their own land. Houses are built by contract under the Trust's supervision. Prices for building and supervision of the standard houses covered by the scheme in late 1960 ranged from £3,150 for a 2-bedroom brick house to £5,000 for a 6-roomed (2-storey) house.

- (c) *Rural Housing.* In order to assist primary producers, the Trust will erect houses on the applicant's own land for his own use or that of his employees, either using local materials or transporting prefabricated houses to the site. At the end of 1960, prices for houses erected on level sites within 100 miles of Adelaide ranged from £2,250 for a 2-bedroom minimum type timber house to £3,000 for a 3-bedroom, asbestos cement sheeted, timber house.

(vi) *Western Australia.* The State Housing Commission is encouraging home ownership under the State Housing Act 1946–1960, which is a continuation of the Workers' Home Board Act, originally promulgated in 1911.

Purchases can be arranged under—(a) a freehold scheme, either by way of mortgage or contract of sale, and (b) leasehold on either a perpetual Crown Lease or a lease for a term of years from the Commission. Under the leasehold scheme purchasers can convert to freehold conditions upon having a 10 per cent. equity in the improvements and agreeing to purchase the land at the valuation originally determined at the date of commencement of the lease.

The housing authority builds the houses by private contract on land provided by the applicant or the Commission. The maximum loan under the State Housing Act is £2,500 in the metropolitan area and £2,750 in rural centres south of the 26th parallel of latitude. For houses built north of the 26th parallel of latitude, the Minister can approve of an advance exceeding £2,500.

To proceed under the mortgage conditions, a deposit of not less than 10 per cent. is required but under the contract of sale or leasehold provisions the minimum deposit is £100. The interest rate in both cases is 5½ per cent. per annum and the repayment period is 45 years.

To obtain assistance, an applicant cannot have an income exceeding £1,196 per annum in metropolitan areas and £1,453 per annum in rural areas plus £25 a year for each dependent child under 16 years of age. This figure varies according to the movement of the basic wage. North of the 26th parallel, the Minister may allow a higher income family to be assisted.

A second mortgage scheme exists under the State Housing Act which provides that assistance be limited to those applicants who are building or purchasing new residential improvements, the cost of which does not exceed £3,000. By policy decision, the Commission limits the second mortgages to a maximum of £1,000.

The number of houses completed under this Act to 30th June, 1960, was—freehold 1,228, leasehold 2,461, assistance by second mortgage 595.

(vii) *Tasmania.* The Agricultural Bank is authorized under the terms of the Homes Act 1935 to make loans to eligible persons for home building on the security of a first mortgage over the property. To be eligible, a person must be married or be about to marry or have dependants for whom it is necessary to provide a home. At present, there are no statutory limitations as to the maximum income which an eligible applicant may receive. However, it is the policy of the Bank not to make loans to persons who are well able to provide houses for themselves. The maximum amount which the Bank will lend at present is £3,300 on homes built in proclaimed brick areas, and £3,000 on timber houses. The rate of interest at present charged is 5½ per cent. a year. Present policy is to allow a maximum of 31 years for repayment of loans.

5. War Service Homes.—The provision of War Service Homes is a function of the War Service Homes Division of the Department of National Development, and the administration of the War Service Homes Act is under the control of the Director of War Service Homes.

The War Service Homes Act 1918–1956 is a measure for the provision of homes for Australian ex-servicemen who served during the 1914–1918 War or the 1939–1945 War and, subject to the statutory provisions of the Act, to persons with service in Korea or Malaya. Provision is made also for assistance to the female dependants of Australian ex-servicemen and other classes of eligible persons as defined in the Act. Assistance may be granted to an eligible person and the wife or husband of that person, as the case may be, as joint tenants.

The maximum amount of loan or advance which may be granted under the Act is £2,750. The period of repayment may be approved up to 45 years. In the case of a widow or widowed mother of an Australian ex-serviceman, the period may be extended to a maximum of 50 years.

The War Service Homes Division does not provide homes for occupation purely on a tenancy basis.

The following table gives details of the operations of the War Service Homes Division from the inception of the Scheme on 6th March, 1919 to 30th June, 1960, and also details of the activities for the year 1959-60.

WAR SERVICE HOMES DIVISION: SUMMARY OF OPERATIONS.

Particulars.	Eligibility Established from Service in:—		Total.	
	1914-18 War.	1939-45 War, Korea or Malaya.		
FROM INCEPTION TO 30TH JUNE, 1960.				
Applications received	No.	111,764	300,038	411,802
Applications approved	"	53,364	159,477	212,841
Homes purchased	"	16,922	72,952	89,874
Homes built, or assistance given to build them	"	23,521	55,388	78,909
Mortgages discharged	"	3,753	18,692	22,445
Total homes provided	"	44,196	147,032	191,228
Transfers or resales	"	8,996	8,609	17,605
Total capital expenditure .. .. .	£	..	..	365,066,265
Total receipts .. .. .	"	..	..	158,902,172

1959-60.

Applications received No.	1,262	19,399	20,661
Applications approved "	721	12,713	13,434
Homes purchased "	484	7,953	8,437
Homes built, or assistance given to build them "	107	3,062	3,169
Mortgages discharged "	47	1,364	1,411
Total homes provided "	638	12,379	13,017
Transfers or resales "	118	964	1,082
Total capital expenditure .. .. . £	..	..	35,067,849
Total receipts .. .. . "	..	..	19,836,469

In addition to the homes provided under the War Service Homes Act, 1,792 homes have been taken over under the Commonwealth State Housing Agreements of 1955 and 1956, of which 174 were taken over during the year 1959-60.

At 30th June, 1960, 1,166 homes, including 144 group homes, were in course of construction; 542 contracts of which 64 were for group homes had been let but work had not started; and 457 tenders, including 24 for group homes, had been called but not finally dealt with.

At 30th June, 1960, the total amount of insurances in force, including cover notes, amounted to £466,779,318 and expenditure from the Insurance Trust Account to £196,167.

At 30th June, 1960, arrears of instalments amounted to £542,402 or 0.36 per cent. of the total instalments due.

6. Other Forms of Government Assistance.—(i) General. In addition to the assistance given to housing as outlined above, the Commonwealth and State Governments, through advances by government banks and the exercise of certain guarantees of the operations of Co-operative Terminating Building Societies by State Governments, further assist in making finance available for the erection and purchase of houses.

(ii) *Government Banks.* The terms and conditions governing the making of advances may be altered from time to time; consequently, no attempt has been made to tabulate them. However, the usual loan for a house of solid construction (brick, etc.) is generally between £2,500 and £3,000. The average loan for a timber-frame house is £2,250. Interest rates charged average 5½ per cent. a year. In some institutions, this may be changed, usually after from 5 years to 10 years from the date of the loan. The maximum period of repayment ranges from about 20 years for timber-frame houses to 30 to 40 years for a house of more solid construction.

(iii) *Building Societies.* There are over 2,000 building societies in Australia, 95 per cent. of which are of the terminating type. Most of the terminating societies are in New South Wales and Victoria. The Government of the State guarantees loans made to the societies in New South Wales, Victoria, Queensland, Western Australia and Tasmania. Terminating societies also operate in the Australian Capital Territory, where legislation was introduced in May, 1959, to provide a government guarantee for loans made to them.

In addition to the terminating societies, there are a number of permanent building societies operating in all States under State legislation. State Governments do not generally guarantee the borrowings or lendings of these societies. However, in Western Australia the Housing Loan Guarantee Act, 1957 provides guarantees in respect of loans made by approved lending institutions (including permanent building societies), to individuals on the security of a mortgage. A premium, one-quarter of 1 per cent. of the balance of the loan outstanding at set intervals, is payable by the lender in return for the guarantee.

In Tasmania, guarantees have been given by the Treasurer to enable permanent building societies to receive substantial bank overdrafts.

§ 4. New Building.

1. *General.*—(i) *Statistics of Building Approved.* Statistics of building approvals have been compiled from (a) permits issued by local government authorities in the areas subject to building control by these authorities, and (b) contracts let or work commenced and day labour projects authorized by governmental authorities. They relate only to approvals for buildings as distinct from the construction of roads, bridges, railways, earth works, water storage, etc. Values shown represent the estimated cost when completed (excluding cost of land) of new buildings and alterations and additions to existing buildings. Additions of £5,000 and over are included with new buildings in all States, except New South Wales, where they are included in "alterations and additions".

These statistics are available from the year 1953–54.

Current information on building approvals may be found in the *Monthly Review of Business Statistics*, the *Digest of Current Economic Statistics*, and the monthly mimeograph statement *Building Approvals*.

(ii) *Statistics of Building Commenced, Completed and Under Construction.* These relate to building by private contractors, Government authorities and owner-builders.

The following outlines the scope of the statistics: (a) only the erection of new buildings as distinct from the construction of railways, bridges, earthworks, water storage, etc., is covered; (b) major new additions to existing buildings are included as new buildings; (c) minor additions, alterations, renovations and repairs are excluded because of the difficulty of obtaining details of this work; (d) converted military huts and temporary dwellings are excluded; (e) figures for houses exclude flats and dwellings attached to other new buildings (the value of dwellings attached to other new buildings is included with the value of buildings to which they are attached); (f) imported prefabricated houses are included; (g) details obtained from Government authorities and building contractors refer to all areas whereas details for owner-builders cover only areas subject to building control by Local Government Authorities.

More detailed information on building activity may be found in the *Quarterly Bulletin of Building Statistics*, and current information is obtainable also in the *Quarterly Summary of Australian Statistics*, the *Monthly Review of Business Statistics*, the *Digest of Current Economic Statistics*, and in the preliminary mimeograph statements *Building Statistics: Number of New Houses and Flats*.

The following definitions of terms used in this section are necessary for interpretation of the data presented:—

Private or Government. A building is classified as “private” or “government” according to ownership.

Owner-built. An “owner-built” house is one actually erected or being erected by the owner or under the owner’s direction without the services of a contractor who is responsible for the whole job.

Contract-built. Includes the operations of all building contractors and Government instrumentalities which undertake the erection of new buildings.

Commenced. A building is regarded as having been commenced when work on foundations has begun. Owing to the difficulty of defining the exact point that this represents in building operations, classifications made by informants may not be entirely uniform.

Completed. A building is regarded as having been completed when the contractor has fulfilled the terms of the contract. As with commencements, the classifications made may not be entirely uniform.

Employment. Figures relate to persons actually working on the jobs of contractors who undertake the erection of new buildings and of Government instrumentalities which erect new buildings on their own account. They include persons actually engaged on alterations, additions, repairs and maintenance when these jobs are undertaken by such contractors and instrumentalities. The figures include working principals and their employees, men working as or for sub-contractors, and men temporarily laid off on account of weather.

Contractors are asked to give details of the persons employed *on a specified day* but, because of frequent movement between jobs and because some persons (such as electricians, etc.) may work on several jobs which are under construction simultaneously, some duplication may occur.

The figures exclude persons working on owner-built houses, and employees of builders who undertake only alterations, additions, repairs and maintenance.

Values. All values shown exclude the value of land and represent the estimated value of buildings on completion.

2. New Houses.—(i) *Approved, Commenced, Completed and Under Construction, 1959–60.* The next table provides a summary of the number of new houses approved, commenced, completed and under construction in each State and Territory.

A graph showing the number of new houses commenced, completed and under construction for the period 1948–49 to 1959–60, will be found on page 379.

NEW HOUSES: NUMBER, 1959–60.

(Including Owner-built Houses.)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T. (a)	A.C.T.	Aust.
Approved ..	32,238	24,585	10,618	8,337	6,082	2,546	442	1,388	86,236
Commenced ..	28,067	23,201	8,959	8,909	5,946	2,357	426	1,425	79,290
Completed ..	29,538	24,157	9,001	8,976	5,997	2,475	341	1,145	81,630
Under Construction at end of year ..	14,611	15,587	2,906	5,114	3,296	1,817	262	1,174	44,767

(a) Includes flats.

(ii) *Approved, Government and Private, 1955-56 to 1959-60.*—The following table shows the number of new houses approved in each State or Territory, according to government and private ownership.

NEW HOUSES APPROVED: NUMBER.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T. (a)	A.C.T.	Aust.
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GOVERNMENT.

1955-56	..	2,687	2,015	1,511	2,586	1,827	532	139	250	11,547
1956-57	..	4,172	2,168	860	2,209	1,910	490	28	362	12,199
1957-58	..	3,438	2,315	978	3,928	1,076	490	161	928	13,314
1958-59	..	3,890	2,274	724	2,452	1,089	477	146	765	11,817
1959-60	..	2,873	2,552	973	2,103	1,229	452	181	862	11,225

PRIVATE.

1955-56	..	21,923	19,786	7,744	5,296	4,069	2,126	149	205	61,298
1956-57	..	21,999	17,700	8,425	4,488	4,189	2,234	136	173	59,344
1957-58	..	24,489	20,404	8,876	4,859	4,418	1,980	160	259	65,455
1958-59	..	27,026	20,552	9,041	5,376	4,173	1,929	230	394	68,721
1959-60	..	29,365	22,033	9,645	6,234	4,853	2,094	261	526	75,011

TOTAL.

1955-56	..	24,610	21,801	9,255	7,882	5,896	2,658	288	455	72,845
1956-57	..	26,171	19,868	9,285	6,697	6,099	2,724	164	535	71,543
1957-58	..	27,937	22,719	9,854	8,787	5,494	2,470	321	1,187	78,769
1958-59	..	30,916	22,826	9,765	7,828	5,262	2,406	376	1,159	80,538
1959-60	..	32,238	24,585	10,618	8,337	6,082	2,546	442	1,388	86,236

(a) Includes flats.

(iii) *Commenced, 1955-56 to 1959-60.* The number of new houses commenced in each State and Territory by contractors and owner-builders is shown in the following table.

NEW HOUSES COMMENCED: NUMBER.

Year.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T. (a)	A.C.T.	Aust.
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CONTRACT-BUILT.(b).

1955-56	..	13,812	13,154	5,469	6,303	4,489	1,342	283	410	45,262
1956-57	..	14,607	12,371	6,006	5,053	4,455	1,465	177	408	44,542
1957-58	..	15,729	15,654	5,559	5,523	4,284	1,291	227	975	49,242
1958-59	..	18,582	17,188	6,387	6,873	4,231	1,508	257	993	56,019
1959-60	..	19,784	19,372	7,349	8,032	5,067	1,491	321	1,286	62,702

OWNER-BUILT.

1955-56	..	9,694	8,091	1,704	2,074	1,847	1,148	58	89	24,705
1956-57	..	8,870	7,278	1,566	1,779	1,110	1,126	74	101	21,904
1957-58	..	8,448	6,279	1,491	1,428	1,044	1,087	84	164	20,025
1958-59	..	8,049	5,255	1,613	1,252	1,011	1,055	77	172	18,484
1959-60	..	8,283	3,829	1,610	877	879	866	105	139	16,588

TOTAL.

1955-56	..	23,506	21,245	7,173	8,377	6,336	2,490	341	499	69,967
1956-57	..	23,477	19,649	7,572	6,832	5,565	2,591	251	509	66,446
1957-58	..	24,177	21,933	7,050	6,951	5,328	2,378	311	1,139	69,267
1958-59	..	26,631	22,443	8,000	8,125	5,242	2,563	334	1,165	74,503
1959-60	..	28,067	23,201	8,959	8,909	5,946	2,357	426	1,425	79,290

(a) Includes flats.

(b) Includes operations of Government Authorities.

(iv) *Completed.* (a) 1955-56 to 1959-60. The following table shows the number of new houses completed in each State and Territory by contractors and owner-builders.

NEW HOUSES COMPLETED: NUMBER.

Year.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T. (a)	A.C.T.	Aust.
CONTRACT-BUILT.(b)									
1955-56 ..	15,085	14,390	5,806	5,951	5,370	1,559	259	575	48,995
1956-57 ..	13,657	13,159	5,649	5,491	3,537	1,460	262	505	43,720
1957-58 ..	16,186	14,630	5,830	5,733	4,921	1,449	201	614	49,564
1958-59 ..	18,111	17,444	6,411	6,452	4,337	1,429	270	1,105	55,559
1959-60 ..	20,104	18,200	7,339	7,714	4,765	1,473	262	974	60,831
OWNER-BUILT.									
1955-56 ..	11,284	8,262	1,590	1,770	2,390	1,162	53	30	26,541
1956-57 ..	8,610	7,026	1,568	1,702	1,493	1,299	66	56	21,820
1957-58 ..	8,928	6,737	1,527	1,873	1,275	1,117	74	84	21,615
1958-59 ..	9,984	6,885	1,795	1,691	1,509	1,148	86	140	23,238
1959-60 ..	9,434	5,957	1,662	1,262	1,232	1,002	79	171	20,799
TOTAL.									
1955-56 ..	26,369	22,652	7,396	7,721	7,760	2,721	312	605	75,536
1956-57 ..	22,267	20,185	7,217	7,193	5,030	2,759	328	561	65,540
1957-58 ..	25,114	21,367	7,357	7,606	6,196	2,566	275	698	71,179
1958-59 ..	28,095	24,329	8,206	8,143	5,846	2,577	356	1,245	78,797
1959-60 ..	29,538	24,157	9,001	8,976	5,997	2,475	341	1,145	81,630

(a) Includes flats.

(b) Includes operations of Government Authorities.

(b) *Material of Outer Walls, 1959-60.* The following table shows the number of new houses completed in each State and Territory during 1959-60, classified according to the material of their outer walls.

NEW HOUSES COMPLETED: NUMBER, 1959-60.

(Including Owner-built Houses.)

Material of Outer Walls.	N.S.W.	Vic.	Q'ld.	S.A.	W.A.	Tas.	N.T. (a)	A.C.T.	Aust.
Brick, Brick Veneer, Concrete and Stone ..	6,340	11,863	1,021	7,625	4,176	814	85	1,079	33,003
Wood (Weatherboard, etc.) ..	9,044	9,987	6,064	88	23	1,582	7	62	26,857
Fibro Cement ..	14,125	2,020	1,811	1,235	1,794	79	246	4	21,314
Other ..	29	287	105	28	4	..	3	..	456
Total ..	29,538	24,157	9,001	8,976	5,997	2,475	341	1,145	81,630

(a) Includes flats.

(c) *Material of Outer Walls, 1955-56 to 1959-60.* The following table shows the number of new houses completed in Australia, classified according to the material of their outer walls.

NEW HOUSES(a) COMPLETED: NUMBER, AUSTRALIA.

(Including Owner-built Houses.)

Material of Outer Walls.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
Brick, Brick Veneer, Concrete and Stone ..	23,523	21,956	25,876	29,443	33,003
Wood (Weatherboard, etc.) ..	29,389	25,670	26,854	28,690	26,857
Fibro Cement ..	22,071	17,408	17,864	20,009	21,314
Other ..	553	506	583	655	456
Total ..	75,536	65,540	71,179	78,797	81,630

(a) Includes Northern Territory flats.

(v) *Under Construction, 1955-56 to 1959-60.* The number of new houses under construction at the end of each year 1955-56 to 1959-60 in each State and Territory is shown in the following table.

NEW HOUSES UNDER CONSTRUCTION: NUMBER.
(Including Owner-built Houses.)

At end of Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T. (a)	A.C.T.	Aust.
1955-56 ..	17,273	18,399	3,106	6,252	4,284	2,305	240	585	52,444
1956-57 ..	18,483	17,863	3,461	5,854	4,819	2,137	163	533	53,313
1957-58 ..	17,546	18,429	3,154	5,199	3,951	1,949	199	974	51,401
1958-59 ..	16,082	16,543	2,948	5,181	3,347	1,935	177	894	47,107
1959-60 ..	14,611	15,587	2,906	5,114	3,296	1,817	262	1,174	44,767

(a) Includes flats.

3. **New Flats.**—The figures in the foregoing tables, except those for the Northern Territory, do not include particulars of new flats. The summary below shows the number of new flats approved, commenced, completed and under construction for the years 1955-56 to 1959-60. It should be noted: (a) that the figures are additional to the numbers of houses shown in other tables, (b) that each flat is counted as a separate unit, and the numbers shown therefore relate to individual flats, (c) that new flats only are included, i.e., the conversions of old buildings into flats are omitted, and (d) "home units" are included as flats.

A graph showing the number of new flats commenced, completed and under construction for the period 1948-49 to 1959-60 will be found on page 379.

NEW FLATS: NUMBER.
(Individual Flats.)

Year.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
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APPROVED—GOVERNMENT.

1955-56 ..	175	332	..	200	93	..	(a)	212	1,012
1956-57 ..	281	575	..	104	44	8	(a)	248	1,260
1957-58 ..	182	341	..	96	140	18	(a)	84	861
1958-59 ..	953	728	..	187	23	65	(a)	502	2,458
1959-60 ..	600	452	111	252	..	40	(a)	107	1,562

APPROVED—PRIVATE.

1955-56 ..	742	444	448	50	232	8	(a)	..	1,924
1956-57 ..	1,258	684	613	210	152	12	(a)	..	2,929
1957-58 ..	1,942	1,039	1,033	470	155	56	(a)	2	4,697
1958-59 ..	3,274	1,237	1,658	476	176	156	(a)	..	6,977
1959-60 ..	8,973	4,028	1,733	739	365	147	(a)	47	16,032

APPROVED—TOTAL.

1955-56 ..	917	776	448	250	325	8	(a)	212	2,936
1956-57 ..	1,539	1,259	613	314	196	20	(a)	248	4,189
1957-58 ..	2,124	1,380	1,033	566	295	74	(a)	86	5,558
1958-59 ..	4,227	1,965	1,658	663	199	221	(a)	502	9,435
1959-60 ..	9,573	4,480	1,844	991	365	187	(a)	154	17,594

COMMENCED—TOTAL.

1955-56 ..	879	715	215	131	353	34	(a)	326	2,653
1956-57 ..	844	1,110	280	295	153	69	(a)	260	3,011
1957-58 ..	1,668	1,283	295	499	234	85	(a)	16	4,080
1958-59 ..	2,855	1,826	887	751	229	206	(a)	430	7,184
1959-60 ..	5,744	3,521	1,319	816	316	184	(a)	154	12,054

(a) Not available for publication. Included with houses.

NEW FLATS: NUMBER.—*continued.*

Year.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
COMPLETED—TOTAL.									
1955-56 ..	776	1,273	200	86	584	49	(a)	..	2,968
1956-57 ..	861	897	174	230	365	105	(a)	264	2,896
1957-58 ..	1,331	1,104	331	372	171	41	(a)	56	3,406
1958-59 ..	1,935	1,434	651	640	212	131	(a)	358	5,361
1959-60 ..	3,870	2,062	922	603	263	197	(a)	474	8,391
UNDER CONSTRUCTION AT END OF YEAR—TOTAL.									
1955-56 ..	830	579	107	121	312	70	(a)	472	2,491
1956-57 ..	765	792	213	184	100	34	(a)	468	2,556
1957-58 ..	1,094	971	177	311	163	78	(a)	428	3,222
1958-59 ..	2,021	1,363	413	422	180	153	(a)	500	5,052
1959-60 ..	3,890	2,822	810	635	233	140	(a)	180	8,710

(a) Not available for publication. Included with houses.

4. Value of New Buildings.—(i) *Approved, Commenced, Completed and Under Construction, 1955-56 to 1959-60.* The following table summarizes the values of all new buildings, approved, commenced, completed and under construction in each State and Territory.

NEW BUILDINGS: VALUE.
(Including Estimated Value of Owner-built Houses.)
(£'000.)

Year.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
APPROVED.									
1955-56 ..	131,393	120,389	40,477	40,880	23,916	10,833	1,759	4,213	373,860
1956-57 ..	114,019	103,633	41,027	30,741	25,528	14,264	1,255	5,767	336,234
1957-58 ..	129,261	121,250	47,289	37,624	24,906	12,668	2,265	8,485	383,748
1958-59 ..	147,871	135,143	47,216	41,068	25,760	12,986	2,567	12,643	425,254
1959-60 ..	192,802	160,644	55,112	46,734	31,766	18,702	3,650	13,031	522,441
COMMENCED.									
1955-56 ..	133,257	121,416	35,024	43,202	26,972	9,889	2,300	4,708	376,768
1956-57 ..	135,798	109,334	37,841	31,888	22,901	14,138	1,765	5,959	359,624
1957-58 ..	137,189	122,133	37,128	35,659	24,790	12,733	2,259	8,588	380,479
1958-59 ..	161,731	131,607	42,829	42,738	26,717	14,409	2,237	10,104	432,372
1959-60 ..	202,250	153,604	50,560	49,468	31,716	18,243	2,778	15,292	523,911
COMPLETED.									
1955-56 ..	124,138	111,594	30,519	33,717	33,678	12,798	1,935	4,287	352,666
1956-57 ..	133,094	114,830	35,383	33,997	23,424	12,609	2,285	5,940	361,562
1957-58 ..	169,240	131,756	38,043	38,047	27,262	12,840	2,110	5,841	425,131
1958-59 ..	159,841	137,437	45,000	44,394	30,262	13,450	2,588	10,999	443,971
1959-60 ..	177,745	148,162	50,205	47,640	30,120	15,803	2,561	14,909	487,145
UNDER CONSTRUCTION AT END OF YEAR.									
1955-56 ..	132,693	128,525	28,210	36,996	25,550	9,864	1,967	11,240	375,045
1956-57 ..	138,792	127,943	31,332	36,792	26,217	12,085	1,555	11,520	386,236
1957-58 ..	113,548	122,750	30,968	35,337	24,312	11,946	1,745	14,589	355,195
1958-59 ..	119,473	120,179	29,709	34,104	21,285	13,053	1,721	13,929	353,453
1959-60 ..	146,819	127,773	30,620	36,822	23,331	15,591	1,998	15,502	398,456

(ii) *Completed, 1959-60.* The following table shows the value of all new buildings completed in each State and Territory during 1959-60, according to the kind of building. It should be remembered that all values shown exclude the value of land and represent the estimated value of buildings on completion.

NEW BUILDINGS COMPLETED: VALUE, 1959-60.

(Including Estimated Value of Owner-built Houses.)
(£'000.)

Type of Building.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Houses—									
Brick, Brick Veneer, Concrete and Stone ..	28,962	46,104	3,923	26,051	13,421	3,203	330	5,586	127,580
Wood (Weatherboard, etc.) ..	28,089	29,702	17,999	300	55	4,407	32	267	80,851
Fibro Cement ..	35,119	4,963	3,960	3,256	4,247	120	1,013	16	52,694
Other ..	93	979	283	64	4	..	7	..	1,430
Total, Houses	92,263	81,748	26,165	29,671	17,727	7,730	(a) 1,382	5,869	262,555
Flats ..	10,808	5,460	2,397	1,385	493	555	(b)	1,832	22,930
Hotels, Guest Houses, etc. ..	4,045	1,693	869	682	451	391	245	149	8,525
Shops ..	6,894	5,382	1,638	1,210	471	496	109	126	16,326
Factories ..	20,461	21,506	2,513	2,729	1,184	861	(c)	(c)	49,476
Business Premises—									
Office ..	5,943	7,986	2,145	2,120	772	781	29	4,991	24,767
Other ..	8,980	7,315	4,207	2,784	3,177	1,411	159	93	28,126
Educational ..	13,833	6,521	3,328	3,380	2,919	1,358	96	792	32,227
Religious ..	1,910	2,356	1,102	417	214	53	..	404	6,458
Health ..	2,238	2,913	2,823	1,073	956	1,105	(c)	(c)	11,216
Entertainment and Recreation ..	5,125	1,292	780	698	568	76	55	28	8,622
Miscellaneous ..	5,245	3,990	2,238	1,491	1,188	984	342	439	15,917
Total, Other Buildings	85,482	66,414	24,040	17,969	12,393	8,073	1,179	9,040	224,590
Total, New Buildings	177,745	148,162	50,205	47,640	30,120	15,803	2,561	14,909	487,145

(a) Includes flats.

(b) Included with houses.

(c) Not available for publication.

(iii) *Completed, 1955-56 to 1959-60.* The following table shows the value of all new buildings completed in Australia.

NEW BUILDINGS COMPLETED: VALUE.

(Including Estimated Value of Owner-built Houses.)
(£'000.)

Type of Building.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
Houses—					
Brick, Brick Veneer, Concrete and Stone ..	86,336	84,505	98,131	113,187	127,580
Wood (Weatherboard, etc.) ..	80,473	74,361	79,631	85,306	80,851
Fibro Cement ..	51,184	42,286	43,836	49,088	52,694
Other ..	1,443	1,339	1,662	1,947	1,430
Total, Houses	219,436	202,491	223,260	249,528	262,555
Flats ..	6,824	7,245	8,238	14,146	22,930
Hotels, Guest Houses, etc. ..	6,309	8,239	6,768	7,204	8,525
Shops ..	12,604	12,527	13,588	15,825	16,326
Factories ..	38,234	43,253	59,883	40,637	49,476
Business Premises—					
Office ..	8,841	16,827	33,678	25,450	24,767
Other ..	14,633	18,863	17,302	20,458	28,126
Educational ..	15,716	14,840	19,630	25,569	32,227
Religious ..	2,409	3,507	4,825	5,994	6,458
Health ..	10,058	13,113	19,889	18,841	11,216
Entertainment and Recreation ..	4,104	9,481	8,815	8,975	8,622
Miscellaneous ..	13,498	11,176	9,263	11,344	15,917
Total, Other Buildings	133,230	159,071	201,879	194,443	224,590
Total, New Buildings	352,666	361,562	425,139	443,971	487,145

5. **Value of Building Approved.**—The following table shows the values of approvals for houses and flats, other new buildings, and alterations and additions in Australia for the years 1955–56 to 1959–60.

BUILDING APPROVED: VALUE, AUSTRALIA.
(£'000.)

Particulars.	1955–56.	1956–57.	1957–58.	1958–59.	1959–60.
Houses and Flats	216,001	218,451	249,347	267,552	319,352
Other New Buildings	157,859	117,783	134,401	157,702	203,089
<i>Total New Buildings</i>	<i>373,860</i>	<i>336,234</i>	<i>383,748</i>	<i>425,254</i>	<i>522,441</i>
Alterations and Additions	59,824	57,861	61,961	70,512	81,273
<i>Total Building</i>	<i>433,684</i>	<i>394,095</i>	<i>445,709</i>	<i>495,766</i>	<i>603,714</i>
Government	101,108	83,330	95,632	103,929	115,800
Private	332,576	310,765	350,077	391,837	487,914

6. **Persons engaged in New Building.**—(i) *At 30th June, 1960.* The following table shows the number of contractors, sub-contractors and wage earners engaged on jobs carried out by builders of new buildings at 30th June, 1960, and also shows the numbers of these persons engaged in the main building occupations at that date.

PERSONS ENGAGED ON JOBS CARRIED OUT BY BUILDERS OF NEW BUILDINGS, 30th JUNE, 1960.

(Excluding Persons working on Owner-built Houses.)

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Contractors(a)	2,978	2,688	2,242	721	518	403	39	142	9,731
Sub-contractors(a)	6,963	6,267	2,577	2,602	1,498	667	83	431	21,088
Wage earners	31,161	28,578	17,380	9,983	7,179	4,362	283	2,883	101,809
<i>Total</i>	<i>41,102</i>	<i>37,533</i>	<i>22,199</i>	<i>13,306</i>	<i>9,195</i>	<i>5,432</i>	<i>405</i>	<i>3,456</i>	<i>132,628</i>
Carpenters	15,065	14,044	9,840	3,584	2,957	2,382	197	1,120	49,189
Bricklayers	4,014	3,964	1,497	2,225	1,094	392	44	345	13,575
Painters	3,547	3,174	1,822	1,220	853	399	28	360	11,403
Electricians	2,255	1,783	1,230	622	505	202	26	183	6,806
Plumbers	3,574	3,163	1,762	1,153	798	296	29	261	11,036
Builders' Labourers	6,946	5,363	3,609	2,183	1,602	1,110	46	662	21,521
Other	5,701	6,042	2,439	2,319	1,386	651	35	525	19,098
<i>Total</i>	<i>41,102</i>	<i>37,533</i>	<i>22,199</i>	<i>13,306</i>	<i>9,195</i>	<i>5,432</i>	<i>405</i>	<i>3,456</i>	<i>132,628</i>

(a) Actually working on jobs.

(ii) *Summary, 1956 to 1960.* The number of persons (including contractors and sub-contractors actually working on jobs) engaged in each State and Territory on jobs *carried out by builders of new buildings* is shown in the following table.

PERSONS ENGAGED ON JOBS CARRIED OUT BY BUILDERS OF NEW BUILDINGS.

(Excluding Persons working on Owner-built Houses.)

At 30th June—	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1956(a) ..	37,300	32,306	19,427	11,258	9,080	4,620	464	1,957	116,412
1957(b) ..	37,337	30,543	18,425	11,036	9,439	4,684	384	2,004	113,852
1958	32,673	31,634	17,886	10,687	8,924	4,460	370	2,982	109,616
1959	36,281	32,626	20,691	12,636	9,092	5,310	401	2,900	119,937
1960	41,102	37,533	22,199	13,306	9,195	5,432	405	3,456	132,628

(a) At 29th June.

(b) At 28th June.

CHAPTER XII.

LABOUR, WAGES AND PRICES.

NOTE.—Reference is made in this chapter to retail and wholesale price indexes. For particulars of the Export Price Index, see Chapter XIII., Trade, and of the Farm Production Price Index, see Chapter XXX., Miscellaneous.

For further information on the subjects dealt with in this Chapter, see the *Labour Report*, issued by this Bureau. For current information, see the *Monthly Review of Business Statistics* and the *Quarterly Summary of Australian Statistics*, also the mimeograph statements *Digest of Current Economic Statistics*, *Monthly Bulletin of Employment Statistics*, *Consumer Price Index* and *Wholesale Price (Basic Materials and Foodstuffs) Index*.

A. RETAIL PRICES AND PRICE INDEXES.

§ 1. General.

Retail prices of food and groceries and average rentals of houses for years extending back to 1901 were collected by the Commonwealth Statistician, and in some cases have been recorded by the Statisticians of various States for earlier years.

Retail prices of a more extensive range of commodities (including clothing) and certain services in common demand have been ascertained at frequent and regular intervals since 1923 for each of the six State capital cities and for 27 of the more important towns of Australia. Comparable information is available for the month of November in each year from 1914 to 1922 for each of the six State capital cities. The list of items currently priced for index purposes is published in *Labour Report* No. 47, 1959.

Average retail prices of certain food and grocery items in current periods are published in the annual *Labour Report* in respect of each State capital city, and in the *Quarterly Summary of Australian Statistics* in respect of each capital city and four other principal towns of each State.

An explanation of the nature and purposes of retail price indexes is given in the various editions of the annual *Labour Report*, together with further particulars of indexes then current. In § 2 below, previous retail price indexes for Australia are briefly outlined. A new retail price index, entitled the Consumer Price Index, was published for the first time in August, 1960. It has been compiled retrospectively to 1948–49. An account of the Consumer Price Index is given in § 3 on page 408.

§ 2. Previous Retail Price Indexes.

1. General.—Five series of retail price indexes had been compiled at various times for Australia by the Commonwealth Statistician prior to 1960. Each of these was continued until changed conditions required the compilation of indexes more directly relevant to current conditions. The respective indexes are described briefly hereunder.

- (i) The "A" Series Index (covering food, groceries and house rents) was first compiled in 1912 with the year 1911 as base = 1,000. It was discontinued in June, 1938.
- (ii) The "B" Series Index (covering food, groceries and rent of 4 and 5 roomed houses) was first compiled in 1925 and continued until December Quarter, 1953. It was the food and rent constituent of the "C" Series Index and was designed to replace the "A" Series Index for general statistical purposes.
- (iii) The "C" Series Index (covering food and groceries, rent of 4 and 5 roomed houses, clothing, household drapery, household utensils, fuel, lighting, fares, smoking and some other miscellaneous items) was first compiled in 1921 (retrospectively to 1914) and published at quarterly intervals from June Quarter, 1922. For general statistical purposes, it has been replaced by the Consumer Price Index. The table on page 418 shows "C" Series index numbers for the period from 1914 to December quarter, 1959.
- (iv) The "D" Series Index, derived by combining the "A" and "C" Series Indexes, was used by the Commonwealth Court of Conciliation and Arbitration from May, 1933, to May, 1934, and then discontinued.

- (v) *The Interim Index* (covering food and groceries, rent of 4 and 5 roomed houses, clothing, household drapery, household utensils, fuel, lighting, fares, smoking, certain services and some miscellaneous items) was first compiled in 1954 with the year 1952-53 as base year = 100. It was constructed as a transitional index and replaced the "C" Series Index for general statistical purposes, but was discontinued following its replacement by the Consumer Price Index.

2. The "Court" Index.—In 1937, the Commonwealth Court of Conciliation and Arbitration introduced a "Court" Index for the purpose of its system of making automatic quarterly adjustments to the basic wage within its jurisdiction. By decision of the Court, the "Court" Index ceased to be issued by the Industrial Registrar as at December Quarter, 1953. "Court" index numbers were an arithmetical conversion of the "C" Series Index.

§ 3. The Consumer Price Index.

1. General.—This new retail price index, which has been compiled for periods from September quarter, 1948 (on the base: year 1952-53=100), was first published in statistical bulletin S.B. 837 of 12th August, 1960. The bulletin contained a brief account of the index and is reproduced (with minor changes) in the Appendix to Labour Report No. 47, 1959. A more comprehensive account of the index is given in statistical bulletin S.B. 891 of January, 1961, entitled "A Description of the Consumer Price Index".

2. Origin.—Previous retail price indexes compiled by the Commonwealth Statistician are outlined in § 2 above. For present discussion, those relevant are the "A" Series Index and the "C" Series Index in pre-war years, and the Interim Index in post-war years. The "A" Series Index was first compiled in 1912 and although it was both rudimentary and of limited scope it was not discontinued until 1938. The "C" Series Index was first compiled in 1921 (retrospectively to 1914) to supply the need for a more adequate index. In its early years, it was described as the "All Items" Index (to distinguish it from the "A" Series) because it included many items in addition to Food, Groceries and House Rents.

The list of component items and the weighting pattern of the "C" Series Retail Price Index, as adopted in 1921, were slightly revised by Conference of Statisticians in 1936 but otherwise continued almost unchanged. The reasons for this, and the circumstances which led to the present Consumer Price Index, appear from ensuing paragraphs.

From the outbreak of war in 1939 to late in 1948, periodic policy changes in regard to various war-time controls (including rationing) caused recurrent changes in consumption and in the pattern of expenditure. This rendered changes desirable but made it impracticable either to produce a new index, or to revise the old one, on any basis that would render the index more representative than it already was of the changing pattern in those years.

When commodity rationing had virtually ceased in the latter part of 1948, action was taken by the Statistician to collect price data of about 100 additional items and to gather information as to current consumption and expenditure patterns. This was done to facilitate review of the component items and weighting system of the "C" Series Retail Price Index, in the light of the new pattern of wage earner expenditure and consumption that appeared to be then emerging. But there supervened, in the next few years, conditions which caused wide price dispersion coupled with a very rapid rise in prices and a new sequence of changes in consumption and the pattern of wage earner expenditure. Under these conditions, it was not possible to devise any new weighting pattern likely to be more continuously representative of conditions then current than was the existing "C" Series Index on the 1936 revision.

A Conference of Statisticians considered the matter in June, 1953, and resolved (in part) as follows:—

- "(a) That, in view of the persistence of recurrent changes in the pattern of consumer expenditure in the post-war period, it is undesirable to make a general revision of the list of items and weighting system of the "C" Series Retail Price Index at present, unless industrial tribunals expressly desire some revision for special purposes.
- (b) That an Interim Retail Price Index be compiled with putative weights and components representative, as nearly as may be, of the post-war pattern of consumer usage and expenditure."

The "C" Series Index continued to be compiled on its pre-war basis without significant change in procedures. The Interim Retail Price Index (1952-53 base year) was introduced in 1954 and continued until March quarter, 1960.

This Interim Index was a transitional index designed to measure retail price variations on the "C" Series model in terms of post-war consumption weights, as emerging in the early 1950's. It embraced a wider range of commodities and services than did the "C" Series Index, but it did not take into account successive major changes in the pattern of expenditure and modes of living that began to occur early in 1950 and through to 1960. These changes could not, in fact, be detected and measured promptly, and incorporated into an index, concurrently with their happening in those years. Nor was it envisaged as desirable to adopt fundamentally new procedures in price index construction until it was fully evident that far reaching procedural changes were necessary to meet the situation that had developed between about 1950 and 1960.

In this period home owning largely replaced house renting, the numbers of government-owned rented houses increased appreciably, the use of the motor car greatly increased and partly replaced use of public transport, various items of electrical household equipment and television came into widespread use, household consumption of electricity greatly increased, and technological developments such as the introduction of new synthetic materials produced a number of changes in clothing and other groups of items. Through the impact of these continuing changes in usage, combined with disparate movements in prices, the Interim Retail Price Index became outmoded. As studies progressed and new data became available, it was clear that no single list of items and no single set of fixed weights would be adequately representative as a basis for measuring retail price changes at all times throughout the post-war period. In consequence, the situation was met by compiling the Consumer Price Index constructed as a chain of linked indexes with significant changes in composition and weighting effected at short intervals during the period 1950-1960.

3. Purpose, Scope and Composition.—(i) *Purpose.* The Consumer Price Index is a quarterly measure of variations in retail prices for goods and services representing a high proportion of the expenditure of wage earner households.

The index is designed only to measure the proportionate change in prices as combined in the individual groups or the aggregate of the groups in the index. This is a basic principle of all price indexes, and failure to grasp it gives rise to misconceptions concerning price indexes and their uses.

Consumer (retail) price indexes are sometimes loosely called "cost of living indexes" and are thought to measure changes in the "cost of living". Neither the Consumer Price Index, nor any other retail price index, measures those changes in the cost of living that result directly from changes in the level of living. Changes of that kind are matters for consideration apart from price indexes. But the change in prices of goods and services is a very important part of the change in the cost of living and this part is measured by consumer (retail) price indexes.

(ii) *Scope—General.* The Consumer Price Index covers a wide range of commodities and services arranged in the following five major groups:—

- Food.
- Clothing and Drapery.
- Housing.
- Household Supplies and Equipment.
- Miscellaneous.

These groups do not include every item of household spending. It is both impracticable and unnecessary for them to do so. Prices are collected regularly for specified quantities and qualities of a large and representative selection of commodities and services. Movements in the prices of these items, when combined in suitable proportions, provide a representative measure of price change as affecting a high proportion of the expenditure of wage earner households.

(iii) *Composition and Weighting.* A comprehensive view of the present composition and weighting of the Consumer Price Index is given in the table below. The weights shown are those comprised in the index for the six State capital cities combined. Broadly, they are in proportion to estimated consumption in 1956-57 valued at the relevant prices of March quarter, 1960.

THE CONSUMER PRICE INDEX.

COMPOSITION AND WEIGHTING PATTERN AS AT MARCH QUARTER, 1960 FOR THE SIX STATE CAPITAL CITIES COMBINED.

Group, Section, etc.	Percentage Weight.	
	Section, etc.	Group.
<i>Food—</i> .. .. .	..	32.1
Cereal Products—Bread, flour, biscuits, rice, and breakfast foods	4.1	..
Dairy Produce—Milk, cheese, butter, and eggs	7.5	..
Potatoes, Onions, Preserved Fruit and Vegetables—Potatoes and onions, canned and dried fruits, and canned vegetables	1.9	..
Soft Drink, Ice Cream and Confectionery	4.0	..
Other (except Meat)—Sugar, jam, margarine, tea, coffee, baby foods, and sundry canned and other foods	4.2	..
Meat—Butcher's (Beef, mutton, lamb and pork)	8.8	..
Processed (Bacon, smallgoods and canned meat)	1.6	..
<i>Clothing and Drapery—</i> .. .. .	..	19.0
Men's Clothing	4.5	..
Women's Clothing	7.4	..
Boys' Clothing	0.6	..
Girls' Clothing	0.9	..
Piecegoods, etc.—Wool, cotton and rayon cloth, nursery squares and knitting wool	1.1	..
Footwear—Men's, women's and children's	3.4	..
Household Drapery—Bedclothes, towels, tablecloth, etc.	1.1	..
<i>Housing—</i> .. .. .	..	10.7
Rent—Privately owned houses	2.0	..
Government owned houses	0.9	..
Home Ownership—House price	4.7	..
Rates	2.1	..
Repairs and Maintenance	1.0	..
<i>Household Supplies and Equipment—</i> .. .. .	..	13.2
Fuel and Light—Electricity	1.9	..
Gas	1.5	..
Other (Firewood and kerosene)	0.8	..
Household Appliances—Refrigerator, washing machine, stoves, radio set, television set, vacuum cleaner, electric iron, etc.	4.5	..
Other Household Articles—		
Floor Coverings	0.5	..
Kitchen and Other Utensils, Gardening and Small Tools	1.0	..
Household Sundries (Household soaps, etc.)	1.1	..
Personal Requisites (Toilet soap, cosmetics, etc.)	1.0	..
Proprietary Medicines	0.8	..
School Requisites	0.1	..
<i>Miscellaneous—</i> .. .. .	..	25.0
Transport—Fares—Train	1.6	..
Tram and bus	2.8	..
Private Motoring—Car purchase	3.0	..
Car operation	3.9	..
Tobacco and Cigarettes	3.9	..
Beer	4.1	..
Services—Hairdressing (Haircuts, wave, etc.)	0.9	..
Drycleaning	0.5	..
Shoe Repairs	0.3	..
Postal and Telephone Services	0.8	..
Other—Radio and Television operation	1.6	..
Cinema Admission	0.6	..
Newspapers	1.0	..
Total	100.0	100.0

4. Structure of the Consumer Price Index.—(i) *A Chain of Linked Indexes.* Changes in the pattern of expenditure of wage earner households in the situation that emerged following the 1939–45 War were such as to render it necessary to construct the Consumer Price Index with additional items and changes in the weighting pattern at intervals, rather than on the basis of a list of items and set of weights that remained unchanged throughout the whole period covered. Four new series for short periods (namely, from the September quarter of 1948 to the June quarter of 1952, from the June quarter of 1952 to the June quarter of 1956, from the June quarter of 1956 to the March quarter of 1960, and from the March quarter of 1960 onwards) were therefore constructed and linked to form a continuous retail price index series to be known as the Consumer Price Index. During each period between links the items and weighting remained unchanged. At times of linking the weighting pattern was altered and new items that had become significant in household expenditure were introduced.

It is important to understand that the introduction of new items and weights by linking does not, of itself, raise or lower the level of the index. Average percentage price movements are assessed on one pattern up to the time of the link and on another pattern thereafter. The process of linking ensures that the series reflects price variations only and not differences in cost of the old and new lists of items.

(ii) *Comparison of the Four Linked Series.* The Consumer Price Index is a chain of “fixed weight aggregative” indexes, with significant changes in composition and weighting effected at June quarter, 1952, June quarter, 1956, and March quarter, 1960. The principal changes are:—

- (a) the introduction of private motoring (June quarter, 1952) and of television (March quarter, 1960);
- (b) altered proportions of houses under the various modes of occupancy (June quarters, 1952 and 1956); and
- (c) changes in weights of fuel and fares (June quarters of 1952 and 1956) and of private motoring (June quarter, 1956).

It is envisaged that future links will be made in the index when significant changes in the pattern of household expenditure render it necessary to do so.

(iii) *Basis of Weighting.* For most of the items included in the index, the weights used are based on the pattern of consumption of the years 1952–53 to 1956–57, which for these items is broadly representative of the whole period for which the index has been compiled. In some important fields, no single set of items and weights was adequately representative throughout the whole period. Weights relevant to short-term conditions in these fields were therefore used in each of the four linked series which constitute the Consumer Price Index. The principal fields affected are Fuel and Light, Transport, Household Appliances, and Housing.

The resultant sets of index weights are broadly typical of the patterns of consumption of:—

- 1948–49: for periods up to June quarter, 1952;
- 1952–53: for periods from June quarter 1952 to June quarter 1956;
- 1956–57: for periods from June quarter 1956.

The weighting of the index from the beginning of the current linked series (i.e. March quarter, 1960) is representative of a 1956–57 pattern of consumption as adjusted to incorporate television in the index from March quarter, 1960.

The sets of weights used for the different periods covered by the index have been derived from analyses of statistics of production and consumption, the general Censuses of 1947 and 1954, the Censuses of Retail Establishments of 1948–49, 1952–53 and 1956–57 and the continuing Survey of Retail Establishments; from information supplied by manufacturing, commercial, and other relevant sources; and from special surveys.

In the main, the weights for items are derived from estimates of average household consumption or expenditure for the community as a whole. The principal exceptions are:—

- (a) The proportionate weighting of the various modes of occupancy of houses, and the weighting generally in the Housing Group, is as estimated for wage and salary earner households (in the individual cities).
- (b) The weights for private motoring, tobacco and cigarettes, beer and some services have been adjusted to accord with broad estimates of expenditure by wage earner households whose income is at or about the average level of adult male earnings.
- (c) Local weights for the individual cities are used for some items (e.g. housing, fuel, and fares).

Basic data for many of the item weights were obtained initially from particulars of quantities consumed. Refinements were made where necessary so that item weights would reflect the approximate relative importance of the items (sometimes including similar items not directly priced) in terms of expenditure. Group and section weights were checked as far as possible against independent estimates of expenditure. Nevertheless, the index is essentially a combination of selected items under various headings and not a dissection of total household expenditure into its component parts. Tables showing the index weighting are provided to assist prospective users in an understanding of the index. The weights are designed as suitable for measuring changes in retail prices within the definition of the index. They do not purport to be valid estimates for any other purpose.

5. Comparison of Consumer Price Index and "C" Series Retail Price Index.—The principal ways in which the Consumer Price Index differs from the "C" Series Retail Price Index are:—

- (a) Its list of items is more extensive than that of the "C" Series. It includes additional fields of expenditure and provides more intensive coverage of other fields.
- (b) The composition and weighting of the Consumer Price Index relate to the modes of living and patterns of expenditure of the post-war period. The "C" Series related to the pre-war pattern.
- (c) The Consumer Price Index is constructed as a series of linked indexes to keep it continuously representative throughout a period of significant changes in the pattern of household expenditure.

In Appendix III. to *Labour Report* No. 47, 1959, a list of items of the Consumer Price Index is shown, and those items not included in the "C" Series Index are indicated. A few items that were in the "C" Series are omitted from the new index. In the various Groups of the Consumer Price Index, the additional sections and items covered may be summarized as follows:—

Food: More processed and packaged foods; lamb; soft drink, ice cream, and confectionery.

Clothing and Drapery: Clothing piecegoods and additional items of clothing and footwear, including casual wear.

Housing: Rents of government-owned houses; home ownership.

Household Supplies and Equipment: Major household appliances; floor coverings; tools; toilet articles; proprietary medicines; and other items.

Miscellaneous: Private motoring; beer; hairdressing; dry cleaning, shoe repairs, and postal, telephone, and television services.

A comparison of the weighting patterns of the Consumer Price Index and the "C" Series, as at the base year of the new index, is given in the table below. The comparison is necessarily approximate only. For example, the distribution of items between Groups is not identical in the two indexes. The table shows the percentage contribution of component parts of the indexes, as at year 1952-53, for the six State capital cities combined.

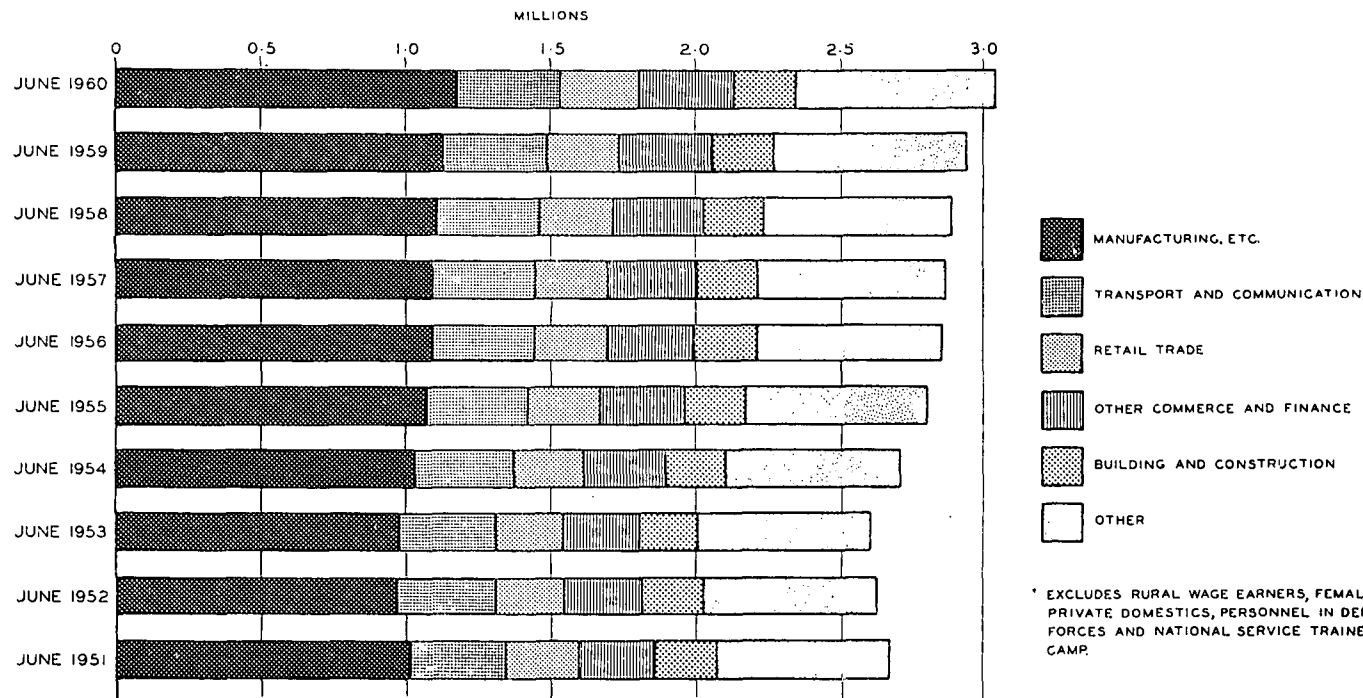
Components.(a)	Percentage Contribution—Weighted average of six capital cities, 1952-53.	
	"C" Series.	Consumer Price Index.
<i>Food Group</i>	41.0	33.2
<i>Clothing and Drapery Group</i>	33.0	21.6
<i>Housing Group</i> —		
Home Ownership	(b)	6.8
Rent of Privately Owned Houses	11.3	2.3
Rent of Government Owned Houses	(b)	0.7
<i>Household Supplies and Equipment Group</i> —		
Fuel and Light	4.5	3.9
Household Appliances	0.7	3.1
Other Household Supplies		4.6
<i>Miscellaneous Group</i> —		
Transport Fares (rail, tram and bus)	2.8	4.5
Private Motoring	(b)	6.1
Tobacco and Cigarettes	2.1	4.2
Beer	(b)	4.0
Services, Cinema, Radio Licence and Newspapers	4.6	5.0
	100.0	100.0

(a) Listed under Consumer Price Index headings.

(b) Not included.

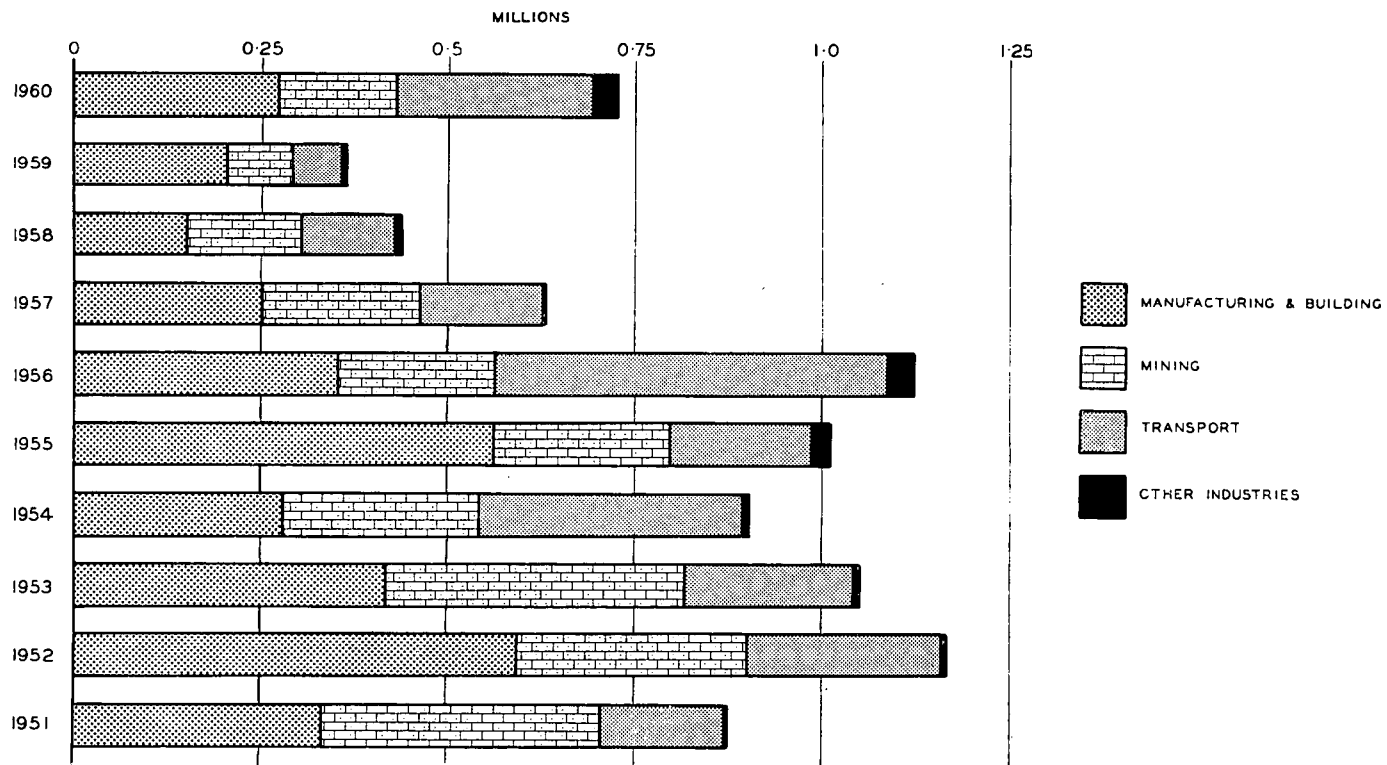
WAGE AND SALARY EARNERS IN CIVILIAN EMPLOYMENT *

AUSTRALIA, 1951 TO 1960



INDUSTRIAL DISPUTES, AUSTRALIA, 1951 TO 1960

WORKING DAYS LOST—INDUSTRIAL GROUPS



§ 4. Tabular Statements of Retail Price Index Numbers.

1. The Consumer Price Index.—(i) *General.* The index has been compiled for each quarter from September quarter, 1948, and for each financial year from 1948-49. "All Groups" index numbers and "Group" index numbers for each of the five major groups are compiled and published regularly for the six State capital cities separately and combined. The reference base for each of these indexes is: year 1952-53 = 100.0. Figures appearing after the decimal point possess little significance for general statistical purposes. They are inserted merely to avoid the minor distortions that would occur in rounding off the figures to the nearest whole number.

Index numbers for each quarter are first issued in mimeographed statistical bulletins available from the Commonwealth Statistician about three weeks after the end of the quarter. These bulletins contain comment on the index and on price movements in that quarter. Tables showing index numbers for preceding quarters and years are presented.

Tables of Consumer Price Index Numbers up to the latest available date appear regularly in the following publications: *Digest of Current Economic Statistics* (monthly), *Monthly Review of Business Statistics*, *Quarterly Summary of Australian Statistics*, *Labour Report* (annual).

(ii) *Consumer Price Index Numbers from September quarter, 1948.* The following table shows Consumer Price Index Numbers (Total All Groups), for the six State capital cities separately and combined, for periods from September quarter, 1948.

**CONSUMER PRICE INDEX: ALL GROUPS INDEX NUMBERS.
SIX CAPITAL CITIES, SEPARATELY AND COMBINED.**

(Base of each Index: Year 1952-53 = 100.)

NOTE.—The separate city indexes measure price movements within each city individually. They enable comparisons to be drawn between cities as to differences in degree of price movement but not as to differences in price level.

Period.	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.	Six Capital Cities. (Weighted Average.)
Year ended June—							
1949	60.5	61.0	62.1	61.6	60.6	60.7	60.9
1950	65.6	66.2	67.1	66.2	66.2	64.7	66.0
1951	74.5	74.6	75.1	74.7	74.4	73.3	74.6
1952	91.9	91.0	91.8	91.4	90.4	90.4	91.4
1953	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1954	101.6	102.0	102.0	102.3	103.0	105.0	102.0
1955	102.3	102.0	102.9	103.5	105.2	104.9	102.6
1956	105.7	108.1	106.3	106.9	107.9	110.2	106.9
1957	112.9	114.0	112.0	111.1	112.9	116.9	113.1
1958	114.5	114.4	114.4	111.9	113.6	117.0	114.2
1959	115.3	116.6	118.2	114.5	114.7	118.7	116.0
1960	117.8	120.0	121.2	118.0	116.9	120.8	118.9
Quarter—							
1948—September	58.7	59.3	60.5	59.8	58.7	58.8	59.2
1949—June ..	62.6	62.9	63.8	63.2	63.1	62.8	62.9
1950	68.0	68.8	69.0	68.7	68.6	66.3	68.4
1951	80.7	80.7	80.5	81.2	80.3	79.6	80.7
1952	98.0	96.4	96.8	97.5	96.0	95.5	97.2
1953	101.2	101.6	100.9	101.4	101.7	102.3	101.4
1954	101.5	102.0	102.1	102.4	104.3	104.4	102.1
1955	103.0	103.1	103.9	104.7	106.6	105.9	103.6
1956	108.8	112.0	109.5	109.9	110.5	113.6	110.2
1957	113.7	114.2	112.6	111.3	114.2	117.5	113.7
1958	115.1	114.6	115.9	112.7	114.1	117.3	114.8
September ..	114.8	114.9	116.7	113.5	114.4	117.7	114.9
December ..	115.2	116.4	117.9	114.2	114.3	118.7	115.8
1959—March ..	115.5	117.1	119.0	115.0	114.7	119.1	116.3
June	115.8	117.9	119.1	115.3	115.5	119.3	116.8
September ..	116.3	118.2	120.2	116.3	115.9	119.7	117.3
December ..	117.2	118.8	120.8	116.9	115.7	120.1	118.0
1960—March ..	118.2	119.8	121.6	118.3	117.1	120.8	119.0
June	119.6	123.0	122.3	120.6	119.0	122.6	121.1
September ..	120.8	124.9	123.6	121.5	119.8	125.8	122.5
December ..	121.6	125.5	125.1	122.4	120.8	127.1	123.3

The following table shows Consumer Price Index Group Index Numbers, for the six State capital cities combined, for periods from September quarter, 1948.

**CONSUMER PRICE INDEX: GROUP INDEX NUMBERS.
WEIGHTED AVERAGE OF SIX CAPITAL CITIES.**

(Base of each Index: Year 1952-53 = 100.)

NOTE.—The group indexes measure price movements of each group individually, and compare the degree of price change in the different groups.

Period.	Food.	Clothing and Drapery.	Housing.	Household Supplies and Equipment.	Miscellaneous.	All Groups.
Year ended June—						
1949	54.1	58.4	72.5	67.0	66.6	60.9
1950	58.6	67.4	76.1	71.1	69.6	66.0
1951	68.6	77.8	81.0	78.1	76.3	74.6
1952	89.9	93.5	89.1	92.9	92.3	91.4
1953	100.0	100.0	100.0	100.0	100.0	100.0
 1954	103.5	100.7	104.8	101.6	99.9	102.0
1955	104.3	101.0	108.4	101.4	99.9	102.6
1956	110.2	102.0	115.1	101.6	105.9	106.9
1957	115.3	103.9	122.1	105.8	118.0	113.1
1958	113.3	107.0	127.3	107.5	119.7	114.2
 1959	115.4	108.2	130.6	108.7	121.2	116.0
1960	119.8	109.4	135.2	109.8	123.9	118.9
 Quarter—						
1948—September	52.3	55.6	70.9	66.2	65.7	59.2
1949—June ..	55.9	62.3	74.1	68.0	67.5	62.9
1950 „ ..	61.5	71.0	77.6	73.2	70.4	68.4
1951 „ ..	75.5	85.9	83.5	83.7	80.7	80.7
1952 „ ..	98.3	97.1	93.1	97.6	97.1	97.2
 1953 „ ..	101.7	101.5	103.1	100.9	100.4	101.4
1954 „ ..	103.5	100.4	106.2	101.7	100.0	102.1
1955 „ ..	106.1	101.9	110.1	100.6	100.4	103.6
1956 „ ..	114.0	102.0	118.5	103.2	112.4	110.2
1957 „ ..	113.8	105.6	124.5	107.1	119.3	113.7
 1958 „ ..	113.9	108.2	128.8	107.3	119.8	114.8
September	113.7	108.2	129.2	107.9	120.1	114.9
December	114.6	108.4	130.4	108.7	121.3	115.8
 1959—March ..	116.3	108.1	130.9	108.9	121.5	116.3
June ..	117.1	107.9	131.9	109.1	121.9	116.8
September	117.9	108.3	132.5	109.4	122.3	117.3
December	118.4	109.2	133.9	109.6	123.0	118.0
 1960—March ..	120.3	109.5	134.8	110.0	123.8	119.0
June ..	122.6	110.5	139.4	110.2	126.4	121.1
September	126.0	110.7	141.4	110.6	126.7	122.5
December	126.7	111.5	144.1	111.0	127.2	123.3

The following table shows Consumer Price Index Group Index Numbers for each State capital city for recent years and quarters.

CONSUMER PRICE INDEX: GROUP INDEX NUMBERS.

(Base of each Index: Year 1952-53 = 100.)

NOTE.—The index numbers hereunder are designed to measure movements in retail prices of specified groups of items for specified cities individually. They measure variations from time to time and not differences in price level as between cities nor comparative costs of groups of items.

City.	Year ended June—						1960.			
	1949.	1953.	1957.	1958.	1959.	1960.	Mar. Qtr.	June Qtr.	Sept. Qtr.	Dec. Qtr.
FOOD GROUP.										
Sydney ..	52.2	100.0	114.2	112.8	113.4	117.5	118.4	119.7	122.8	123.5
Melbourne ..	54.9	100.0	117.8	114.3	116.1	120.8	120.8	124.2	129.1	129.2
Brisbane ..	56.4	100.0	111.5	113.0	119.8	124.2	124.6	125.3	126.9	130.0
Adelaide ..	56.1	100.0	114.7	111.8	117.5	123.1	123.7	128.1	130.4	130.6
Perth ..	55.0	100.0	116.0	114.4	115.2	118.4	118.4	121.6	122.9	122.9
Hobart ..	56.0	100.0	118.6	115.1	116.8	118.5	117.8	121.4	128.4	131.7
Six Capitals(a) ..	54.1	100.0	115.3	113.3	115.4	119.8	120.3	122.6	126.0	126.7
CLOTHING AND DRAPERY GROUP.										
Sydney ..	58.0	100.0	103.5	106.4	107.5	108.5	108.6	109.4	109.6	110.2
Melbourne ..	58.6	100.0	104.9	108.4	109.6	110.7	110.9	111.6	111.9	112.7
Brisbane ..	59.2	100.0	104.7	107.8	109.4	111.9	112.2	113.9	114.1	115.0
Adelaide ..	58.3	100.0	101.7	104.4	105.4	106.8	107.0	108.1	108.3	109.5
Perth ..	59.6	100.0	103.1	105.7	107.2	108.2	108.0	109.6	109.8	110.8
Hobart ..	58.0	100.0	106.1	108.7	109.8	110.7	110.8	111.6	111.6	112.3
Six Capitals(a) ..	58.4	100.0	103.9	107.0	108.2	109.4	109.5	110.5	110.7	111.5
HOUSING GROUP.										
Sydney ..	74.2	100.0	120.0	126.3	130.2	133.8	133.9	136.5	138.0	139.7
Melbourne ..	76.0	100.0	122.8	127.3	129.4	135.8	134.3	144.3	147.2	150.2
Brisbane ..	67.1	100.0	118.4	123.9	128.4	132.6	132.7	134.0	136.1	137.0
Adelaide ..	68.7	100.0	129.2	133.9	137.1	140.0	140.3	141.3	143.4	149.1
Perth ..	62.7	100.0	123.6	126.0	130.3	133.5	134.2	135.6	137.0	141.6
Hobart ..	70.3	100.0	133.3	137.3	141.3	148.5	150.1	151.7	153.7	155.9
Six Capitals(a) ..	72.5	100.0	122.1	127.3	130.6	135.2	134.8	139.4	141.4	144.1
HOUSEHOLD SUPPLIES AND EQUIPMENT GROUP.										
Sydney ..	67.0	100.0	106.5	109.3	109.1	109.6	110.0	109.6	110.2	111.4
Melbourne ..	66.1	100.0	105.2	106.2	109.2	110.9	110.9	111.9	112.3	112.4
Brisbane ..	68.6	100.0	106.5	108.3	109.0	110.6	111.0	110.9	110.6	110.7
Adelaide ..	69.5	100.0	103.2	104.0	105.0	106.0	106.2	106.0	106.0	105.6
Perth ..	66.5	100.0	104.5	105.7	105.9	107.1	107.4	107.0	107.4	107.3
Hobart ..	68.1	100.0	115.2	116.0	116.8	118.5	118.4	120.1	121.3	120.3
Six Capitals(a) ..	67.0	100.0	105.8	107.5	108.7	109.8	110.0	110.2	110.6	111.0
MISCELLANEOUS GROUP.										
Sydney ..	67.7	100.0	119.7	121.8	121.9	124.0	123.8	126.4	126.5	126.8
Melbourne ..	64.4	100.0	117.8	118.8	122.2	125.5	125.3	128.9	128.9	129.2
Brisbane ..	69.2	100.0	118.9	120.5	123.6	125.6	125.9	126.2	128.3	129.5
Adelaide ..	67.2	100.0	111.6	114.2	114.6	118.8	118.8	121.0	121.2	121.2
Perth ..	67.7	100.0	117.0	118.3	118.7	120.9	121.2	123.3	123.7	125.6
Hobart ..	63.1	100.0	118.5	119.5	121.2	123.3	123.3	123.7	125.7	125.9
Six Capitals(a) ..	66.6	100.0	118.0	119.7	121.2	123.9	123.8	126.4	126.7	127.2

(a) Weighted average.

2. The "C" Series Retail Price Index, 1914-1959.—The following table shows "C" Series Retail Price Index Group and All Groups Index Numbers, for the six State capital cities combined, for periods from 1914 to 1959.

"C" SERIES RETAIL PRICE INDEX, 1914-1959. GROUP(a) AND TOTAL INDEX NUMBERS FOR SIX STATE CAPITAL CITIES COMBINED.

(Base of Each Group: Weighted Average of Six Capital Cities, 1923-27 = 1,000.)

Period.				Food and Groceries. (b)	Rent (4 and 5 Roomed Houses). (c)	Clothing.	Miscellaneous.	Total "C" Series Index. (b)
1914 (d)	..	..	..	641	649	754	749	687
1915 (d)	..	..	..	842	659	792	786	782
1916 (d)	..	..	..	812	665	881	802	795
1917 (d)	..	..	..	836	685	992	882	847
1918 (d)	..	..	..	861	722	1,097	972	905
1919 (d)	..	..	..	1,026	768	1,238	1,036	1,022
1920 (d)	..	..	..	1,209	851	1,365	1,194	1,166
1921 (d)	..	..	..	950	877	1,246	1,010	1,013
1922 (d)	..	..	..	945	929	1,052	999	975
1923	..	..	..	1,009	950	1,045	999	1,003
1924	..	..	..	969	988	1,003	1,004	987
1925	..	..	..	998	1,008	991	992	997
1926	..	..	..	1,023	1,026	986	998	1,011
1927	..	..	..	1,000	1,030	975	1,008	1,002
1928	..	..	..	985	1,066	997	1,010	1,009
1929	..	..	..	1,044	1,073	996	1,007	1,033
1930	..	..	..	941	1,047	951	999	975
1931	..	..	..	826	901	853	973	873
1932	..	..	..	796	817	804	958	830
1933	..	..	..	751	804	787	950	804
1934	..	..	..	783	810	785	944	817
1935	..	..	..	806	839	783	946	832
1936	..	..	..	825	879	792	947	850
1937	..	..	..	851	912	811	960	873
1938	..	..	..	886	942	829	961	897
1939	..	..	..	927	965	841	962	920
1940	..	..	..	939	973	956	998	957
1941	..	..	..	947	976	1,118	1,060	1,008
1942	..	..	..	1,031	976	1,308	1,112	1,091
1943	..	..	..	1,037	975	1,440	1,160	1,131
1944	..	..	..	1,026	976	1,435	1,165	1,126
1945	..	..	..	1,034	975	1,425	1,161	1,126
1946	..	..	..	1,036	976	1,505	1,167	1,145
1947	..	..	..	1,100	977	1,566	1,199	1,188
1948	..	..	..	1,256	979	1,744	1,257	1,295
1949	..	..	..	1,394	982	1,997	1,338	1,415
1950	..	..	..	1,566	987	2,286	1,435	1,560
1951	..	..	..	2,041	1,009	2,749	1,679	1,883
1952	..	..	..	2,526	1,057	3,096	1,958	2,196
1953	..	..	..	2,641	1,138	3,223	2,053	2,302
1954	..	..	..	2,671	1,192	3,218	2,062	2,326
1955	..	..	..	2,811	1,226	3,237	2,081	2,393
1956	..	..	..	A 2,923 B 3,084	1,325	3,261	2,236	A 2,489 B 2,547
1957	..	..	..	2,973 2,971	1,380	3,357	2,372	2,567 2,565
1958	..	..	..	3,021 2,993	1,460	3,418	2,424	2,626 2,615
1959	..	..	..	3,116 3,111	1,536	3,455	2,481	2,696 2,694
1959—March	Quarter	..	..	3,057 3,067	1,510	3,420	2,474	2,660 2,663
June	"	..	..	3,096 3,086	1,524	3,440	2,473	2,681 2,677
September	"	..	..	3,139 3,132	1,544	3,455	2,484	2,707 2,704
December	"	..	..	3,170 3,160	1,567	3,504	2,492	2,735 2,732

(a) "Group" index numbers in the above table cannot be compared with each other in order to show the relative cost of Food and Groceries, Rent, Clothing or Miscellaneous requirements, since each "Group" has its own base = 1,000, namely, the weighted average cost for the six capital cities as a whole during the five-year period 1923-27. (b) The index in column "A" excludes, and that in column "B" includes, the price movement of potatoes and onions as from (and including) 1956. (c) The rent index numbers shown measure the proportionate rise and fall in the average weekly rentals paid for houses of four and five rooms taking corresponding houses throughout. They are "price" indexes in the strict sense, i.e. they are designed to measure only the "price" element in rent fluctuations. Rentals of new tenanted houses completed since the end of the 1939-45 war are not taken into account. (d) November.

§ 5. International Comparisons.

The following table shows index numbers of consumer (retail) prices for various countries. Except where otherwise noted, the average prices for the year 1953 are taken as base (= 100). The figures, which have been taken from the *Monthly Bulletin of Statistics* of the Statistical Office of the United Nations, show fluctuations in prices in each country, and do not measure relative price levels as between countries.

INDEX NUMBERS OF CONSUMER (RETAIL) PRICES IN VARIOUS COUNTRIES.

(Source: *Monthly Bulletin of Statistics* of the Statistical Office of the United Nations.)

(Base: 1953 = 100.)

Period.	Argentina (Buenos Aires).	Australia. (a)	Belgium. (b)	Brazil (Sao Paulo).	Canada.	Finland.	France (Paris).	Germany (Western).	India. (b)	Ireland.	Italy.
1951 ..	69	82	99	-67	98	-94	91	100	98	87	94
1952 ..	96	96	100	82	101	98	101	102	97	95	98
1953 ..	100	100	-100	100	100	100	100	100	100	-100	-100
1954 ..	104	101	101	118	101	100	100	100	95	100	103
1955 ..	117	103	101	142	101	97	101	102	90	103	105
1956 ..	132	109	104	173	102	108	103	105	99	107	109
1957 ..	165	112	107	206	106	-120	-106	106	114	112	110
1958 ..	217	113	108	237	108	128	121	-110	109	116	113
1959 ..	464	116	110	326	110	130	129	111	114	116	113
1960 ..	590	120	110	439	111	134	134	113	117	117	115
1960—											
March Qtr.	574	117	110	402	110	132	133	114	114	116	115
June ..	588	119	110	423	110	134	133	113	116	117	115
Sept. ..	594	121	110	446	111	134	134	113	118	117	116
Dec. ..	604	122	110	486	112	135	136	113	117	119	116

Period.	Japan.	Netherlands.	New Zealand.	Norway.	Pakistan (Karachi).	Philippines (Manila).	Sweden.	Switzerland.	Union of South Africa. (c)	United Kingdom.	United States of America.
1951 ..	-89	100	89	90	88	111	92	98	89	89	97
1952 ..	94	100	96	98	90	104	99	101	97	-97	99
1953 ..	100	100	100	100	100	100	100	100	100	100	-100
1954 ..	106	104	105	104	98	99	(d) 101	101	102	102	100
1955 ..	-105	106	-107	105	94	98	104	102	105	106	100
1956 ..	106	108	111	109	97	100	109	103	107	(e) -112	102
1957 ..	109	115	113	112	106	102	113	105	110	116	105
1958 ..	108	117	118	118	110	105	119	107	-114	119	108
1959 ..	110	119	123	-120	106	104	120	106	115	120	109
1960 ..	114	121	124	121	113	109	124	108	117	121	111
1960—											
March Qtr.	112	120	123	120	114	105	124	107	116	120	110
June ..	113	121	123	121	113	106	124	108	117	121	110
Sept. ..	115	122	124	121	113	111	124	108	117	121	111
Dec. ..	115	121	125	121	113	113	125	109	117	122	111

(a) Consumer Price Index as converted to base 1953 = 100 by Commonwealth Statistician. (b) Rent is not included. (c) Index for Europeans only. (d) July-December. (e) Linked at January, 1956.

NOTE.—Symbol - on each side of an index number (e.g., -95-) indicates that two series have been linked at that period.

B. WHOLESALE PRICES AND PRICE INDEXES.

§ 1. General.

Two indexes of wholesale prices have been compiled by the Commonwealth Bureau of Census and Statistics. These are:—

(i) The Melbourne Wholesale Price Index;

(ii) The Wholesale Price (Basic Materials and Foodstuffs) Index.

Particulars of the Melbourne Wholesale Price Index, which is now obsolescent, are given in § 3 commencing on page 421.

After reviewing the list of items and weighting of this index, the 1930 Conference of Statisticians resolved that a new index of wholesale prices of basic materials and foodstuffs should be compiled. This index—the Wholesale Price (Basic Materials and Foodstuffs) Index—which extends back to the year 1928 and is compiled monthly, is a special purpose index and one of a series of wholesale price indexes designed for special purposes.

§ 2. Wholesale Price (Basic Materials and Foodstuffs) Index.

1. **Price Quotations.**—The prices used in the index have in the main been obtained directly from manufacturers and merchants, and, with a few important exceptions, from Melbourne sources. Apart from locally-produced building materials and one or two minor commodities, however, the price movements may be taken as representative of variations in wholesale prices of basic materials in most Australian markets.

Commodities in the index are priced in their primary or basic form wherever possible and, in respect of imported materials, as nearly as may be at the point where they first make effective impact on the local price structure. Thus the prices of imported goods are not taken at the time of import, but rather on an ex-bond (or into factory) basis.

Broadly, where home-consumption prices exist for local products, they have been used in this index. During the year 1950-51, wool for local manufacture was subsidized, and the home-consumption price for wool was used to calculate the index numbers shown in the table on page 421.

2. **Commodities and Grouping.**—For purposes of this index, "basic" materials (as opposed to certain of the foodstuffs) are commodities in the primary or basic forms in which they first enter into productive processes carried out in Australia. The list of items is divided into seven main groups, each of which is sub-divided into goods which are mainly imported, and goods which are mainly home-produced. The percentage of the total aggregate in 1960 contributed by each group was as follows:—Metals and coal, 17.10; oils, fats and waxes, 8.16; textiles, 2.81; chemicals, 3.74; rubber and hides, 2.06; building materials, 10.39; foodstuffs and tobacco, 55.74. Goods principally imported comprised 23.13 per cent. of the total aggregate in 1960, and goods principally home-produced, 76.87.

A full list of the commodities and the quantity-multipliers (weights) is published in *Labour Report* No. 47, 1959, page 9.

3. **Method of Construction.**—The index is constructed on the simple aggregative fixed-weights formula. The weights (quantity-multipliers) are based on estimates of the average annual consumption of the commodities in Australia during the period 1928-29 to 1934-35 inclusive. Changes in usage, changes of category as between "imported" and "home-produced" for some commodities, and changes in the industrial structure have affected the validity of some of the weights in the index.

During 1956, supplies and prices of potatoes and onions fluctuated violently upwards and downwards between abnormally wide limits. These fluctuations were so great as to dominate the movement of the sections of the index in which these items were included, namely, "Foodstuffs and Tobacco", "Goods Principally Home-produced" and "Total All Groups". In the circumstances of the case, neither seasonal adjustment nor conversion of the index to a "changing weights" formula could be applied to eliminate these transient fluctuations. Accordingly, in order to provide a representative measure of general trend in wholesale prices, the index was reconstructed as from July, 1936, by omitting potatoes and onions.

Consideration is being given to the enlargement of the index to cover additional groups and to revision of the weighting pattern of the index.

4. **Index Numbers.**—Index numbers for each group of commodities and for all groups combined for the index of wholesale prices of basic materials and foodstuffs are given in the following table. Current index numbers, on the base: Average of three years ended June, 1939 = 100, are published monthly in the mimeographed statistical bulletin *Wholesale Price (Basic Materials and Foodstuffs) Index* and in the *Monthly Review of Business Statistics*. A table showing index numbers computed to the base 1928 = 100 is published in the *Labour Report*.

WHOLESALE PRICE (BASIC MATERIALS AND FOODSTUFFS) INDEX NUMBERS.

(Base of each Group: Average of 3 years ended June, 1939 = 100.)

Period.	Basic Materials.							Food-stuffs and Tobacco. (a)	Basic Materials and Foodstuffs.		
	Metals and Coal.	Oils, Fats and Waxes.	Textiles.	Chemicals.	Rubber and Hides.	Building Materials.	Total.		Goods principally Imported. (b)	Goods principally Home-produced. (a)	Total All Groups. (a)
1928-29	127	106	129	121	115	95	114	107	91	118	110
1929-30	126	111	99	116	87	94	107	110	94	118	111
1930-31	116	117	80	117	73	96	105	91	100	99	99
1931-32	108	113	77	119	74	95	101	86	100	92	95
1932-33	104	109	75	119	69	95	98	80	97	87	90
1933-34	103	84	102	111	80	94	92	84	89	89	90
1934-35	97	90	78	102	77	93	89	87	92	89	90
1935-36	92	95	100	99	88	93	90	92	95	92	93
1936-37	96	99	118	99	111	99	99	98	99	98	99
1937-38	101	101	100	100	97	104	102	102	102	101	101
1938-39	103	100	82	101	92	97	99	101	99	100	100
1939-40	105	115	104	107	116	108	109	99	111	101	104
1940-41	107	137	111	124	126	128	122	107	133	106	114
1941-42	117	151	118	137	135	135	133	116	153	112	124
1942-43	129	167	147	142	138	163	149	126	176	120	136
1943-44	131	170	150	143	140	174	153	130	182	122	140
1944-45	131	168	152	143	140	175	152	132	182	124	141
1945-46	130	156	152	142	140	177	149	136	178	127	142
1946-47	132	145	191	140	131	180	149	139	177	130	144
1947-48	146	161	283	148	126	190	166	154	192	145	159
1948-49	185	173	342	159	130	198	188	174	201	172	180
1949-50	214	184	434	187	143	225	214	196	223	196	204
1950-51	256	196	641	242	292	268	264	229	256	240	244
1951-52	343	220	577	314	298	370	321	276	288	300	297
1952-53	392	234	607	350	224	404	350	293	292	331	319
1953-54	388	222	566	323	191	363	332	308	271	339	319
1954-55	391	214	510	314	246	372	330	315	277	340	322
1955-56	404	220	456	317	328	415	345	325	292	352	334
1956-57	409	241	520	344	302	463	367	324	311	357	344
1957-58	398	238	437	349	280	453	355	325	301	355	339
1958-59	392	231	362	327	293	423	340	332	283	358	336
1959-60	395	225	403	331	379	431	347	348	281	375	348
1960-61—											
July ..	403	225	384	329	349	439	349	390	280	409	371
August ..	401	225	366	329	365	439	347	392	280	410	372
September	402	226	370	329	370	439	349	388	280	407	370
October	402	223	368	329	378	439	348	377	279	399	364
November	402	222	377	329	377	439	348	365	280	390	357
December	400	221	376	329	342	439	345	363	280	386	355
January	399	219	380	332	323	439	344	359	278	384	352
February	397	219	389	332	322	438	344	362	276	386	354
March ..	397	220	395	332	324	438	345	367	276	391	357
April ..	397	221	413	332	325	439	346	371	277	394	360

(a) During 1956 these indexes were reconstructed from July, 1936, by excluding potatoes and onions. See para. 3 on p. 420. (b) Represents only such imported commodities as are included in the Wholesale Price Index and does not measure changes in the prices of all imports.

§ 3. Melbourne Wholesale Price Index.

1. General.—An index of Melbourne wholesale prices was first computed in 1912. It relates chiefly to basic materials and foods weighted in accordance with consumption in the years immediately preceding that date. Neither the components of the list of items nor the weighting have been varied, except as indicated in footnote (a) to the following table. Consequently, the index is outmoded for current use but it has some historical significance as a measure of changes in the prices of its component items combined in the proportions in which they were in common use about the year 1910. It is now published on an annual basis for "All Groups" only and is used mainly as an approximate indication of long-term trends since the year 1861, for which it was first compiled. A description of the index and a list of the commodities included in it were published in *Labour Report* No. 38, 1949, pages 43-5.

2. **Index Numbers.**—Index numbers for each group of commodities as well as for all groups combined are shown in the following table:—

MELBOURNE WHOLESALE PRICE INDEX NUMBERS.

(Base of each Group: Year 1911 = 1,000.)

Year.	Metals and Coal.	Wool, Cotton, Leather, etc.	Agricultural Produce, etc.	Dairy Produce.	Groceries.	Meat.	Building Materials.	Chemicals.	All Groups.
1861	1,438	1,381	1,583	1,008	1,963	..	1,070	2,030	1,538
1871	1,096	1,257	1,236	864	1,586	..	1,044	1,409	1,229
1881	1,178	1,115	1,012	935	1,421	..	1,091	1,587	1,121
1891	895	847	1,024	995	1,032	888	780	1,194	945
1901	1,061	774	928	1,029	1,048	1,345	841	917	974
1911	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
1921	2,173	1,361	1,767	2,000	1,977	2,158	2,733	2,303	1,903
1931	1,826	1,040	1,121	1,398	1,794	1,512	2,025	2,166	1,429
1941	1,960	1,402	1,721	1,554	1,883	1,776	3,138	2,527	1,796
1949	3,502	3,966	2,876	2,309	2,558	3,356	4,611	3,221	3,191
1950	3,902	5,464	3,155	2,459	2,829	4,616	(a)5,567	3,263	3,816
1951	5,080	7,943	4,512	2,930	2,850	6,438	(a)7,074	3,294	5,098
1952	6,481	7,365	5,038	4,024	3,455	6,289	(a)9,338	3,723	5,647
1953	6,615	6,950	4,958	4,533	3,767	6,303	(a)8,519	4,691	(b)5,631

(a) The list of items and weighting of the original Building Materials group of this index are outmoded in respect of recent years. The movement shown here for this group between 1949 and 1953 has been calculated in accordance with the movement occurring in the Building Materials group of the Basic Materials and Foodstuffs Index. (b) The "All Groups" index numbers for years subsequent to 1953 were:—1954, 5,384; 1955, 5,548; 1956, 5,916; 1957, 5,814; 1958, 5,575; 1959, 5,394; 1960, 5,857.

C. CONTROL OF PRICES DURING AND SINCE THE 1939-45 WAR.

1. **General.**—An account of the measures taken by the Commonwealth Government to control prices from September, 1939 (immediately after the outbreak of war), until 29th May, 1948 (the date of the Prices Referendum), was given in Official Year Book No. 37, pages 458-64.

2. **Transfer of Price Control to the States.**—Consequent upon the rejection of the proposal embodied in the Prices Referendum held on 29th May, 1948, that permanent power to control rents and prices (including charges) be conferred on the Commonwealth Government, responsibility for price fixation was assumed by the State Governments and steps were taken to pass State Prices Acts. These Acts were proclaimed to operate simultaneously on 20th September, 1948. Except in the case of Queensland, each Act was to remain in force for a specific period, but the period varied from State to State.

On 20th September, 1948, each State Government issued declarations covering uniform lists of goods and services, which were brought under price control. Existing Commonwealth Prices Regulation Orders continued to apply to these goods and services until specially varied in accordance with the terms of the State legislation. At the same time, the Commonwealth Government issued an identical list of declared items to operate in the Australian Capital Territory and other Territories of the Commonwealth.

In the operation of State price control, the State Prices Commissioners collaborated closely. Conferences of Commissioners were held at intervals of approximately two months. Thus a large degree of uniformity was attained in controlling and decontrolling items and in the fixation of margins and prices of major items.

Since 1952, price control has been progressively modified in all States. General price control ceased in Western Australia on 31st December, 1953; in Tasmania on 31st October, 1954; in Victoria on 31st December, 1954; and in the Australian Capital Territory on 10th February, 1955. In New South Wales, general control of prices was suspended on 15th April, 1955, but was temporarily restored on some items from July, 1955, to September, 1956.

3. **Price Stabilization.**—Expenditure by the Commonwealth Government on price stabilization subsidies reached a peak in 1947-48 and since then the Commonwealth Government has progressively reduced the range of commodities eligible for subsidy.

In addition to those subsidies which had been an integral part of the Price Stabilization Plan, the Commonwealth Government paid bounties and subsidies for assistance to primary production, and these payments also had a stabilizing influence on prices.

For particulars of expenditure by the Commonwealth Government on price stabilization, see Official Year Book No. 38, page 414, and for other subsidies and bounties, see Chapter XXI.—Public Finance.

D. WAGES.

§ 1. Arbitration and Wages Boards Acts and Associated Legislation.

1. **General.**—Particulars regarding the operation of Commonwealth and State Laws for the regulation of wages, hours and conditions of labour were first compiled for the year 1913, and revised particulars have appeared annually in the *Labour Report* and in issues of the Official Year Book prior to No. 38.

2. **Commonwealth.**—Under placitum (xxxv) of section 51 of the Commonwealth of Australia Constitution, the Commonwealth Parliament is empowered to make laws with respect to "conciliation and arbitration for the prevention and settlement of industrial disputes extending beyond the limits of any one State". The Parliament has made such a law, namely the Conciliation and Arbitration Act.

This Act defines an "industrial dispute" as "(a) A dispute (including a threatened, impending or probable dispute) as to industrial matters which extends beyond the limits of any one State; and (b) a situation which is likely to give rise to a dispute as to industrial matters which so extends; and includes—(c) such a dispute in relation to employment in an industry carried on by, or under the control of, a State or an authority of a State; (d) a dispute in relation to employment in an industry carried on by, or under the control of, the Commonwealth or an authority of the Commonwealth, whether or not the dispute extends beyond the limits of any one State; and (e) a claim which an organization is entitled to submit to the Commission under section eleven A of the *Public Service Arbitration Act* 1920–1959 or an application or matter which the Public Service Arbitrator has refrained from hearing, or from further hearing, or from determining under section fourteen A of that Act, whether or not there exists in relation to the claim, application or matter a dispute as to industrial matters which extends beyond the limits of any one State."

The Conciliation and Arbitration Act was extensively amended by an Act (No. 44 of 1956) assented to on 30th June, 1956. This amendment altered the structure of the arbitration machinery by separating the judicial functions from the conciliation and arbitration functions. The Commonwealth Industrial Court was established to deal with judicial matters under the Act and the Commonwealth Conciliation and Arbitration Commission to handle the functions of conciliation and arbitration. A summary of the provisions of the Conciliation and Arbitration Act 1904–1960 is given in the following paragraphs.

The Commonwealth Industrial Court is at present composed of a Chief Judge and three other Judges. The jurisdiction of the Court shall be exercised by not less than two Judges, except in the following circumstances. A single Judge may exercise the jurisdiction of the Court with respect to the dismissal or injury of an employee on account of industrial action, interpretation of awards, questions concerning eligibility of membership of an organization, disputes between an organization and its members and a prescribed matter of practice or procedure. A single Judge may refer a question of law for the opinion of the Court constituted by not less than two Judges. The Court is a Superior Court of Record with the same power to punish contempts of its power and authority as is possessed by the High Court. In general, decisions of the Industrial Court are final; however, an appeal lies to the High Court but only when the latter grants leave to appeal. The Act provides for the registration of associations of employees and employers and for inquiries to be held concerning disputed elections in organizations; and certain powers in connexion therewith are, by the Act, given to the Industrial Court. Provision is also made for the Commission to exercise the powers of the Court with regard to an application for cancellation of registration of an organization. Any such change of jurisdiction must be notified by proclamation. This provision could be used if the powers of the Court in this regard were declared, in whole or in part, to be invalid.

Special provision is made concerning the right of audience before the Commonwealth Industrial Court. Briefly, except in proceedings which, in general, involve questions of law or offences against the Act, parties are able to elect whether to appear personally or to be represented by lawyers or officials. Even in proceedings involving questions of law, except appeals from decisions by other Courts to the Industrial Court, on matters arising under this Act or the Public Service Arbitration Act 1920–1959, the parties may, if they wish and the Court grants leave, be represented by officials.

The Commonwealth Conciliation and Arbitration Commission at present consists of a President, five Deputy Presidents, a Senior Commissioner, seven Commissioners and three Conciliators. The Commission is empowered to prevent or settle industrial disputes by conciliation or arbitration, and to make suggestions and to do such things as appear right

and proper for (a) effecting a reconciliation between parties to industrial disputes; (b) preventing and settling industrial disputes by amicable agreement; and (c) preventing and settling, by conciliation or arbitration, industrial disputes not prevented or settled by amicable agreement. The Commission may exercise its powers of its own motion or on the application of a party.

The President may assign a Commissioner to deal with industrial disputes relating to particular industries, or members of the Commission to deal with a particular industrial dispute. However, subject to the approval of the President, it is the duty of the Senior Commissioner to organize and allocate the work of the Commissioners and Conciliators.

When an industrial dispute occurs or is likely to occur, a Commissioner shall take steps for the prompt prevention or settlement of that dispute by conciliation or, if in his opinion conciliation is unlikely to succeed or has failed, by arbitration. A Commissioner may arrange with the Senior Commissioner for a Conciliator to assist the parties to reach an amicable agreement and shall do so if the parties so request. If an agreement is reached, a memorandum of its terms shall be made in writing, and may be certified by the Commission. A certified memorandum shall have the same effect as an award.

The Commission in Presidential Session, that is, the Commission constituted by at least three presidential members nominated by the President and not otherwise, is empowered to deal with making awards, or certifying agreements, in so far as they concern standard hours, basic wages and long-service leave.

Upon application by a party to an industrial dispute, a Commissioner shall consult with the President as to whether in the public interest any matter in dispute should be dealt with by a Commission constituted by not less than three members nominated by the President, at least one of whom shall be a presidential member and one, where practicable, the Commissioner concerned. The President may direct the Commission to hear the matter in dispute; however, after consideration, the Commission may refer the matter in dispute back for determination to the Commissioner originally dealing with the dispute.

An appeal against the decision of a Commissioner shall be heard by not less than three members nominated by the President, of whom at least two shall be presidential members of the Commission. However, an appeal will not be heard unless the Commission considers it is necessary as a matter of public interest. The President, after taking account of the views of the parties to a dispute, may appoint a member of the Commission to take evidence on behalf of the full bench of the Commission, so that the full bench can have this evidence before it when it commences its hearing.

Full benches of the Commission not constituted by the same persons may sit in joint session at the direction of the President when he considers it desirable and has the opinion that a question is common to the matters before those benches. A joint session may be held whether the benches concerned are constituted pursuant to the Conciliation and Arbitration Act or the Public Service Arbitration Act, and whether they are constituted to hear references or appeals. However, it is left to each appropriate full bench to determine any of the matters before it.

Provision is also made in the Act for a presidential member of the Commission to handle industrial matters in connexion with the Maritime Industries, Snowy Mountains Area and Stevedoring Industry, except in those matters for which the Act requires that the Commission shall be constituted by more than one member.

The Commonwealth Conciliation and Arbitration Commission also deals with disputes and industrial matters, interstate or intra-state, associated with undertakings or projects of the Commonwealth Government which have been declared by the Minister to be Commonwealth projects for the purposes of this Act. In effect, this places employees of Commonwealth projects, so declared, under the jurisdiction of the Commission. The Minister has the power to exempt certain persons or classes of persons working on these projects from the jurisdiction of the Commission.

The Commission may make an award in relation to an industrial dispute concerning employees of a Commonwealth project or when the Public Service Arbitrator refrains from dealing with claims made by a Public Service employee organization or consents to the claims being presented to the Commission, though such an award may be inconsistent with a law of the Commonwealth relating to salaries, wages, rates of pay or terms or conditions of service of employees in the Public Service as defined by section 3 of the Public Service Arbitration Act 1920-1959, not being the Commonwealth Employees' Compensation Act 1930-1959, the Commonwealth Employees' Furlough Act 1943-1959, the Superannuation Act 1922-1959 or any other prescribed Act.

The Act provides that where a State law, or an order, award, decision or determination of a State industrial authority, is inconsistent with or deals with a matter dealt with in an award of the Commission, the latter shall prevail, and the former, to the extent of the inconsistency or in relation to the matter dealt with, shall be invalid.

For further particulars regarding Commonwealth arbitration legislation, see the Annual *Labour Report*.

3. States.—In each State, Industrial Tribunals have been established to regulate and arbitrate in industrial matters. The chief of these are the Industrial Commission of New South Wales, the Industrial Courts of Queensland and South Australia, and the Western Australian Court of Arbitration, together with Wages Boards for specific industries or occupations which operate in Victoria, South Australia and Tasmania. Further details concerning the functions and powers of these authorities may be found in the *Labour Report*.

§ 2. Rates of Wage and Hours of Work.

1. General.—This section contains indexes (with base: year 1954 = 100) of minimum weekly and hourly rates of wage and standard hours of work for adult males and adult females for Australia and each State. In the indexes, there are 15 industrial groups for adult males and 8 industrial groups for adult females. For relevant periods, these indexes replace cognate indexes (base: year 1911 = 1,000 for males and April, 1914 = 1,000 for females) published in issues prior to No. 46, 1959. The current indexes are based on the occupation structure existing in 1954. Weights for each industry and each occupation were derived from two sample surveys made in that year. The first was the Survey of Awards in April, 1954, which showed the number of employees covered by individual awards, determinations and agreements. This provided employee weights for each industry as well as a basis for the Survey of Award Occupations made in November, 1954. This second survey showed the number of employees in each occupation within selected awards, etc., thereby providing occupation weights.

The industrial classification used in the current indexes, shown in the table on pages 426-7, does not differ basically from the previous classification, the alterations being largely in the arrangement of classes. The former Miscellaneous group was dissected into two component industry groups, "Wholesale and Retail Trade" and "Public Administration and Professional". A new group, "Communication", was included and the former Domestic, Hotels, etc., group was extended to include Amusement, Sport and Recreation. This group is now shown as "Amusement, Hotels, Personal Service, etc.". The "Domestic" part of this group was omitted because of coverage difficulties. The former Pastoral, Agricultural, etc. group is not included in the new index.

The minimum wage rates and standard hours of work used in the current indexes are for representative occupations within each industry. They have been derived entirely from representative awards, determinations and agreements in force at the end of each quarter, commencing with 31st March, 1939, for adult males and 31st March, 1951, for adult females. The index for adult males includes rates and hours for 3,406 award designations. However, as some of these designations are operative within more than one industry, or in more than one State, the total number of individual award occupations is 2,314. For adult females, the corresponding numbers are 1,120 and 522. Using the industry and occupation weights derived from the surveys described above, these rates and hours were combined to give weighted averages for each industrial group for each State and Australia. Weighted averages of the components of the total minimum weekly wage rate, i.e., basic wage, margin and loading, were calculated separately for employees covered by Commonwealth awards, etc., and for those covered by State awards, etc. (See p. 428.)

Because the indexes are designed to measure movements in prescribed minimum rates of "wages" as distinct from "salaries", awards, etc., relating solely or mainly to salary earners are excluded.

A more detailed description of the current indexes of minimum rates of wage and standard hours of work is given in *Labour Report* No. 47, 1959, which also contains an extensive tabular presentation of the minimum rates of wage for adult males and females in the principal occupations in the capital city of each State.

2. **Weekly Wage Rates.**—(i) *Adult Males—States.* The following table shows, for each State and Australia, the weighted average minimum weekly rates of wage payable to adult male workers for a full week's work and index numbers at the dates specified:—

WEEKLY WAGE RATES: ADULT MALES, ALL GROUPS.(a)

WEIGHTED AVERAGE MINIMUM WEEKLY RATES(b) PAYABLE FOR A FULL WEEK'S WORK (EXCLUDING OVERTIME) AND INDEX NUMBERS OF WAGE RATES.

Date.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aust.
RATES OF WAGE.(c)							
	<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>
31st December, 1939..	100 1	97 1	99 5	94 1	100 6	92 2	98 4
" " 1945..	122 6	121 1	118 1	116 0	120 4	115 7	120 7
" " 1950..	206 2	201 9	195 2	197 11	200 7	198 0	202 0
" " 1955..	305 3	295 7	283 6	285 0	300 1	293 7	297 0
" " 1960..	361 9	349 8	350 8	341 11	358 1	351 10	354 6

INDEX NUMBERS.

(Base: Weighted Average Weekly Wage Rate for Australia, 1954 = 100.)

31st December, 1939..	35.4	34.4	35.2	33.3	35.6	32.6	34.8
" " 1945..	43.4	42.9	41.8	41.1	42.6	40.9	42.7
" " 1950..	73.0	71.4	69.1	70.1	71.0	70.1	71.5
" " 1955..	108.1	104.7	100.4	100.9	106.3	104.0	105.2
" " 1960..	128.1	123.8	124.2	121.1	126.8	124.6	125.5

(a) Excludes rural. (b) As prescribed in awards, determinations and agreements. (c) The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends.

(ii) *Adult Males—Industrial Groups.* The following table shows for Australia the weighted average minimum weekly rates of wage and index numbers in each industrial group and for all groups (excluding rural) at the dates specified.

WEEKLY WAGE RATES: ADULT MALES, INDUSTRIAL GROUPS, AUSTRALIA.

WEIGHTED AVERAGE MINIMUM WEEKLY RATES(a) PAYABLE FOR A FULL WEEK'S WORK (EXCLUDING OVERTIME) AND INDEX NUMBERS OF WAGE RATES.

Industrial Group.	31st Dec., 1939.	31st Dec., 1945.	31st Dec., 1950.	31st Dec., 1955.	31st Dec., 1960.
RATES OF WAGE.(b)					
	<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>
Mining and Quarrying ..	109 11	138 8	259 7	366 10	414 9
Manufacturing—					
Engineering, Metal Works, etc. ..	99 10	122 2	201 8	294 9	349 10
Textiles, Clothing and Footwear ..	93 1	115 10	197 5	285 0	340 2
Food, Drink and Tobacco ..	99 1	119 11	201 5	295 9	352 0
Sawmilling, Furniture, etc. ..	97 6	117 11	196 0	288 10	345 8
Paper, Printing, etc. ..	104 7	127 8	214 3	312 6	376 3
Other Manufacturing ..	96 5	118 7	197 7	291 4	345 6
All Manufacturing Groups ..	98 8	120 8	200 10	294 1	349 10
Building and Construction ..	99 3	119 8	198 7	295 6	356 10
Railway Services ..	94 6	117 9	195 10	290 11	346 5
Road and Air Transport ..	99 1	121 7	197 11	294 3	352 1
Shipping and Stevedoring(c) ..	91 0	117 7	196 7	276 11	344 6
Communication ..	97 10	123 9	213 4	316 6	383 7
Wholesale and Retail Trade ..	98 6	119 5	200 10	297 9	357 0
Public Administration and Professional ..	91 11	113 9	192 1	289 10	347 2
Amusement, Hotels, Personal Service, etc. ..	94 1	115 3	192 4	283 7	337 0
All Industrial Groups(d) ..	98 4	120 7	202 0	297 0	354 6

For footnotes see next page.

WEEKLY WAGE RATES: ADULT MALES, INDUSTRIAL GROUPS, AUSTRALIA.

—continued.

Industrial Group.	31st Dec., 1939.	31st Dec., 1945.	31st Dec., 1950.	31st Dec., 1955.	31st Dec., 1960.
INDEX NUMBERS.					
(Base: Weighted Average Weekly Wage Rate for Australia, 1954 = 100.)					
Mining and Quarrying	38.9	49.1	91.9	129.9	146.9
Manufacturing—					
Engineering, Metal Works, etc. ..	35.3	43.3	71.4	104.4	123.9
Textiles, Clothing and Footwear ..	33.0	41.0	69.9	100.9	120.4
Food, Drink and Tobacco ..	35.1	42.5	71.3	104.7	124.6
Sawmilling, Furniture, etc. ..	34.5	41.8	69.4	102.3	122.4
Paper, Printing, etc. ..	37.0	45.2	75.9	110.7	133.2
Other Manufacturing ..	34.1	42.0	70.0	103.2	122.3
All Manufacturing Groups ..	34.9	42.7	71.1	104.1	123.9
Building and Construction	35.1	42.4	70.3	104.6	126.3
Railway Services	33.5	41.7	69.3	103.0	122.7
Road and Air Transport	35.1	43.0	70.1	104.2	124.7
Shipping and Stevedoring(c)	32.2	41.6	69.6	98.1	122.0
Communication	34.6	43.8	75.5	112.1	135.8
Wholesale and Retail Trade	34.9	42.3	71.1	105.4	126.4
Public Administration and Professional ..	32.5	40.3	68.0	102.6	122.9
Amusement, Hotels, Personal Service, etc.	33.3	40.8	68.1	100.4	119.3
All Industrial Groups(d)	34.8	42.7	71.5	105.2	125.5

(a) As prescribed in awards, determinations and agreements. (b) The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends. (c) Includes the value of keep, where supplied. (d) Excludes rural.

(iii) *Adult Males—Components of Total Wage Rate.* A dissection of weighted average minimum weekly wage rates for adult males into the three components of the total minimum wage, i.e., basic wage, margin and loading, is given in the following two tables, separate particulars being shown for employees covered by awards, etc., within Commonwealth and State jurisdictions. For the purposes of the index, the Commonwealth jurisdiction embraces awards of, or agreements registered with, the Commonwealth Conciliation and Arbitration Commission, and determinations of the Commonwealth Public Service Arbitrator. State jurisdictions embrace awards or determinations of, or agreements registered with, State industrial tribunals, together with certain unregistered agreements, where these are dominant in the particular industries to which they refer.

The basic wage rates shown herein are weighted averages of the rates prescribed in awards, etc., for the occupations included in the index for each State. For industries other than mining, metropolitan basic wage rates have generally been used. However, there are a number of occupations for which basic wage rates other than the metropolitan rate are prescribed. Also, in some States at various times, State Government employees under Commonwealth awards have been paid State basic wage rates, and the basic wage rates of some employees have been subject to automatic quarterly adjustments while those of other employees within the same jurisdiction have remained unchanged. In all such cases, the basic wage rate actually paid is used in tables below. For these and other reasons, the weighted average basic wage rates differ, in the majority of cases, from the metropolitan basic wage rates shown in other sections of this chapter.

Margins are minimum amounts, in addition to the basic wage, awarded to particular classifications of employees for features attaching to their work, such as skill, experience, arduousness and other like factors.

Loadings are minimum amounts, in addition to the basic wage and margin (if any), awarded for various kinds of disabilities associated with the performance of work, or to meet particular circumstances. They include payments such as industry loadings and other general loadings prescribed in awards, etc., for the occupations included in the index.

For a more detailed description of this dissection of weekly wage rates into components and for tables for each State and Australia, according to jurisdiction, extending back to 1939, see Statistical Bulletin 902, *Minimum Weekly Wage Rise Index—Adult Males: Components of Total Wage Rate.*

(a) *States.* The following table shows the components of the total minimum weekly wage rate for each State and Australia, as at 31st December, 1960, according to jurisdiction.

WEEKLY WAGE RATES: ADULT MALES, COMPONENTS OF TOTAL WAGE RATE, 31st DECEMBER, 1960.(a)

WEIGHTED AVERAGES OF MINIMUM WEEKLY RATES(b) PAYABLE FOR A FULL WEEK'S WORK (EXCLUDING OVERTIME).

Jurisdiction and Components of Total Wage.(c)	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aust.
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
<i>Commonwealth Awards, etc.—</i>							
Basic Wage	283 9	275 5	266 7	271 6	276 6	284 11	278 2
Margin	71 6	66 1	79 11	72 4	85 10	61 4	69 10
Loading	3 7	3 1	5 1	1 4	2 10	2 0	3 2
<i>Total Wage</i>	<i>358 10</i>	<i>344 7</i>	<i>351 7</i>	<i>345 2</i>	<i>365 2</i>	<i>348 3</i>	<i>351 2</i>
<i>State Awards, etc.—</i>							
Basic Wage	293 9	275 9	276 11	271 1	293 10	282 1	285 1
Margin	65 7	79 10	69 1	55 10	60 0	66 8	67 8
Loading	5 8	5 5	4 5	7 11	3 3	8 8	5 3
<i>Total Wage</i>	<i>365 0</i>	<i>361 0</i>	<i>350 5</i>	<i>334 10</i>	<i>357 1</i>	<i>357 5</i>	<i>358 0</i>
<i>All Awards, etc.—</i>							
Basic Wage	288 6	275 6	275 0	271 5	291 10	283 10	281 6
Margin	68 8	70 4	71 2	67 2	63 0	63 5	68 10
Loading	4 7	3 10	4 6	3 4	3 3	4 7	4 2
<i>Total Wage</i>	<i>361 9</i>	<i>349 8</i>	<i>350 8</i>	<i>341 11</i>	<i>358 1</i>	<i>351 10</i>	<i>354 6</i>

(a) Excludes rural. The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends. (b) As prescribed in awards, determinations and agreements. (c) For definitions see text above.

(b) *Australia, 1939 to 1960.* The components of the total minimum weekly wage rate for Australia, according to jurisdiction, are shown in the following table.

WEEKLY WAGE RATES: ADULT MALES, COMPONENTS OF TOTAL WAGE RATE, AUSTRALIA.(a)

WEIGHTED AVERAGES OF MINIMUM WEEKLY RATES(b) PAYABLE FOR A FULL WEEK'S WORK (EXCLUDING OVERTIME).

Jurisdiction and Components of Total Wage.(c)	31st Dec., 1939.	31st Dec., 1945.	31st Dec., 1950.	31st Dec., 1955.	31st Dec., 1960.
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
<i>Commonwealth Awards, etc.—</i>					
Basic Wage	79 5	97 3	162 2	239 0	278 2
Margin	17 3	19 4	35 8	52 8	69 10
Loading	0 4	4 1	3 11	2 4	3 2
<i>Total Wage</i>	<i>97 0</i>	<i>120 8</i>	<i>201 9</i>	<i>294 0</i>	<i>351 2</i>
<i>State Awards, etc.—</i>					
Basic Wage	81 11	98 1	161 8	244 8	285 1
Margin	17 4	20 0	35 3	50 6	67 8
Loading	0 6	2 5	5 5	5 0	5 3
<i>Total Wage</i>	<i>99 9</i>	<i>120 6</i>	<i>202 4</i>	<i>300 2</i>	<i>358 0</i>
<i>All Awards, etc.—</i>					
Basic Wage	80 8	97 8	161 11	241 10	281 6
Margin	17 3	19 8	35 6	51 7	68 10
Loading	0 5	3 3	4 7	3 7	4 2
<i>Total Wage</i>	<i>98 4</i>	<i>120 7</i>	<i>202 0</i>	<i>297 0</i>	<i>354 6</i>

For footnotes, see table above.

(iv) *Adult Females—States.* The following table shows, for each State and Australia, the weighted average minimum weekly rates of wage payable to adult female workers for a full week's work and index numbers at the dates specified. This series has not been compiled for years prior to 1951.

WEEKLY WAGE RATES: ADULT FEMALES.

WEIGHTED AVERAGE MINIMUM WEEKLY RATES(a) PAYABLE FOR A FULL WEEK'S WORK (EXCLUDING OVERTIME) AND INDEX NUMBERS OF WAGE RATES.

Date.		N.S.W.		Vic.		Q'land.		S.A.		W.A.		Tas.		Aust.	
RATES OF WAGE.(b)															
		s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
31st December, 1951..	..	172	4	172	2	161	2	170	3	162	6	165	7	170	4
" "	1953..	200	6	201	4	188	2	199	1	190	2	197	2	198	9
" "	1955..	209	8	210	5	194	3	201	9	197	9	200	0	206	11
" "	1957..	223	8	225	0	206	1	219	6	212	5	219	0	221	3
" "	1960..	261	3	246	7	239	3	242	10	251	1	238	7	251	8

INDEX NUMBERS.

(Base: Weighted Average Weekly Wage Rate for Australia, 1954 = 100.)

31st December, 1951..	86.6	86.5	81.0	85.5	81.6	83.2	85.6
" " 1953..	100.7	101.1	94.5	100.0	95.5	99.0	99.8
" " 1955..	105.3	105.7	97.6	101.3	99.3	100.5	103.9
" " 1957..	112.4	113.0	103.5	110.3	106.7	110.0	111.1
" " 1960..	131.2	123.9	120.2	122.0	126.1	119.8	126.4

(a) As prescribed in awards, determinations and agreements. (b) The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends

(v) *Adult Females—Industrial Groups.* The following table shows for Australia weighted average minimum weekly rates of wage and index numbers in each of the industrial groups in which the number of females employed is important, and the weighted average for all groups combined, at the dates specified.

WEEKLY WAGE RATES: ADULT FEMALES, INDUSTRIAL GROUPS, AUSTRALIA.

WEIGHTED AVERAGE MINIMUM WEEKLY RATES(a) PAYABLE FOR A FULL WEEK'S WORK (EXCLUDING OVERTIME) AND INDEX NUMBERS OF WAGE RATES.

Industrial Group.	31st Dec., 1951.	31st Dec., 1953.	31st Dec., 1955.	31st Dec., 1957.	31st Dec., 1960.					
RATES OF WAGE.(b)										
Manufacturing—	<i>s.</i>	<i>d.</i>	<i>s.</i>	<i>d.</i>	<i>s.</i>	<i>d.</i>				
Engineering, Metal Works, etc. ..	170	11	200	7	206	6	220	9	249	9
Textiles, Clothing and Footwear ..	171	2	198	9	200	11	217	4	240	8
Food, Drink and Tobacco ..	165	9	194	6	206	10	215	11	246	4
Other Manufacturing ..	168	9	197	7	203	7	217	8	248	0
All Manufacturing Groups ..	169	11	198	3	203	4	217	10	244	7
Transport and Communication ..	177	6	206	5	213	10	228	3	259	6
Wholesale and Retail Trade ..	171	1	199	7	213	0	227	2	263	7
Public Administration and Professional ..	170	1	199	1	209	8	224	7	257	9
Amusement, Hotels, Personal Service, etc.	166	9	194	10	201	8	215	7	244	10
All Industrial Groups.. ..	170	4	198	9	206	11	221	3	251	8

For footnotes, see next page.

WEEKLY WAGE RATES: ADULT FEMALES, INDUSTRIAL GROUPS,
AUSTRALIA—*continued.*

Industrial Group.	31st Dec. 1951.	31st Dec. 1953.	31st Dec. 1955.	31st Dec. 1957.	31st Dec. 1960.
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INDEX NUMBERS.

(Base: Weighted Average Weekly Wage Rate for Australia, 1954 = 100.)

Manufacturing—					
Engineering, Metal Works, etc. ..	85.9	100.8	103.7	110.9	125.5
Textiles, Clothing and Footwear ..	86.0	99.8	100.9	109.2	120.9
Food, Drink and Tobacco ..	83.3	97.7	103.9	108.5	123.7
Other Manufacturing ..	84.8	99.2	102.3	109.3	124.6
All Manufacturing Groups ..	85.4	99.6	102.1	109.4	122.9
Transport and Communication ..	89.2	103.7	107.4	114.7	130.3
Wholesale and Retail Trade ..	85.9	100.3	107.0	114.1	132.4
Public Administration and Professional ..	85.4	100.0	105.3	112.8	129.5
Amusement, Hotels, Personal Service, etc.	83.8	97.9	101.3	108.3	123.0
All Industrial Groups.. ..	85.6	99.8	103.9	111.1	126.4

(a) As prescribed in awards, determinations and agreements. (b) The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends.

3. **Standard Hours of Work.**—(i) *General.* In the fixation of weekly wage rates, most industrial tribunals prescribe the number of hours constituting a full week's work for the wage rates specified. The hours of work so prescribed form the basis of the compilation of the weighted averages and index numbers on pages 431–3. The main features of the reduction of hours to 44 and later to 40 per week are summarized below. In considering such changes, it must be remembered that even within individual States the authority to alter conditions of work is divided between Commonwealth and State industrial tribunals and the various legislatures, and that the State legislation usually does not apply to employees covered by awards of the Commonwealth Conciliation and Arbitration Commission. However, it may do so in respect of matters not treated in Commonwealth awards.

(ii) *The 44-hour Week.* No permanent reduction to a 44-hour week was effected until 1925, although temporary reductions had been achieved earlier. In 1920, the New South Wales legislature granted a 44-hour week to most industries, but in the following year this provision was withdrawn. Also in 1920, the President of the Commonwealth Court of Conciliation and Arbitration (Higgins J.), after inquiry, granted a 44-hour week to the Timber Workers' Union, and in the following year extended the same privilege to the Amalgamated Society of Engineers. In 1921, however, a reconstituted Commonwealth Court of Conciliation and Arbitration unanimously rejected applications by five trade unions for the shorter standard week and reintroduced the 48-hour week in the case of the above-mentioned two unions then working 44 hours. During 1924, the Queensland Parliament passed legislation to operate from 1st July, 1925, granting the 44-hour standard week to employees whose conditions of work were regulated by awards and agreements of the Queensland State industrial authority. Similar legislative action in New South Wales led to the re-introduction of the 44-hour week in that State as from 4th January, 1926.

In 1927, after an exhaustive inquiry, the Commonwealth Court of Conciliation and Arbitration granted a 44-hour week to the Amalgamated Engineering Union and intimated that this reduction in standard hours of work would be extended to industries operating under conditions similar to those in the engineering industry. Applications for the shorter hours by other unions were, however, treated individually, the nature of the industry, the problem of production, the financial status and the amount of foreign competition being fully investigated. The economic depression delayed the extension of the standard 44-hour week until the subsequent improvement in economic conditions made possible its general extension to employees under Commonwealth awards.

In States other than New South Wales and Queensland, no legislation was passed to reduce the standard hours of work so that, for employees not covered by Commonwealth awards, the change had to be effected by decisions of the appropriate industrial tribunals.

In these cases, the date on which the reduction to 44 hours was implemented depended on the decision of the tribunals in particular industries, employees in some industries receiving the benefit of the reduced hours years ahead of those in others. In these States, the change to the shorter week extended over the years from 1926 to 1941.

(iii) *The 40-hour Week.* (a) *Standard Hours Inquiry, 1947.* Soon after the end of the 1939-45 War, applications were made to the Commonwealth Court of Conciliation and Arbitration for the introduction of a 40-hour week, and the hearing by the Court commenced in October, 1945. Before the Court gave its decision, the New South Wales Parliament passed legislation granting a 40-hour week, operative from 1st July, 1947, to industries and trades regulated by State awards and agreements, and in Queensland similar legislation was introduced in Parliament providing for the 40-hour week to operate from 1st January, 1948.

The Commonwealth Court of Conciliation and Arbitration, in its judgment on 8th September, 1947, granted the reduction to the 40-hour week from the beginning of the first pay-period commencing in January, 1948. The Queensland Act was passed, and was proclaimed on 10th October, 1947. On 27th October, 1947, the South Australian Industrial Court, after hearing applications by unions, approved the incorporation of the 40-hour standard week in awards of that State. The Court of Arbitration of Western Australia on 6th November, 1947, approved that, on application, provision for a 40-hour week could be incorporated in awards of the Court, commencing from 1st January, 1948.

In Victoria and Tasmania, the Wages Boards met and also incorporated the shorter working week in their determinations, so that from the beginning of 1948 practically all employees in Australia whose conditions of labour were regulated by industrial authorities had the advantages of a standard working week of 40 hours or, in certain cases, less.

(b) *Basic Wage and Standard Hours Inquiry, 1952-53.* In the 1952-53 Basic Wage and Standard Hours Inquiry, the employers sought an increase in the standard hours of work per week, claiming that one of the chief causes of the high costs and inflation had been the loss of production due to the introduction of the 40-hour week. This claim was rejected by the Court as it considered that the employers had not proved that the existing economic situation called for a reduction of general standards in the matter of the ordinary working week. (*See also p. 438.*)

4. *Hourly Wage Rates.*—(i) *General.* The average rates of wage in the preceding tables are based on the minimum rates prescribed for selected occupations in awards, etc., for a full week's work, excluding overtime. However, the number of hours constituting a full week's work differs in some instances between various occupations in each State, and between the same occupations in the several States. For some purposes, a better comparison may be obtained by reducing the results in the preceding paragraphs to a common basis, namely, the rate of wage per hour. The particulars of weighted average minimum hourly rates of wage given in the following tables relate to all industrial groups except Rural, and Shipping and Stevedoring. The Rural industry is not included in the index and Shipping and Stevedoring has been excluded because, for some of the occupations in this group, definite particulars for the computation of average working hours and hourly rates of wage are not available.

(ii) *Adult Males—States.* The following table shows the weighted average minimum hourly rates of wage payable to adult male workers and index numbers of hourly rates in each State.

HOURLY WAGE RATES(a) : ADULT MALES.

WEIGHTED AVERAGE MINIMUM HOURLY RATES PAYABLE AND INDEX NUMBERS OF HOURLY RATES.

Date.	N.S.W.	Vic.	Q'land.	S. A.	W. A.	Tas.	Aust.
RATES OF WAGE.(b) (Pence.)							
31st December, 1939..	27.48	26.44	27.49	25.45	27.15	25.14	26.91
„ „ 1945..	33.64	33.05	32.63	31.72	32.83	31.71	33.05
„ „ 1950..	61.96	60.58	58.60	59.44	60.35	59.42	60.70
„ „ 1955..	91.89	88.87	85.22	85.68	90.50	88.45	89.36
„ „ 1960..	108.79	105.00	105.33	102.65	107.87	105.81	106.53

For footnotes, see next page.

HOURLY WAGE RATES(a): ADULT MALES—*continued.*

Date.	N.S.W.	Vic.	Q'land.	S. A.	W. A.	Tas.	Aust.
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INDEX NUMBERS.

(Base: Weighted Average Hourly Wage Rate for Australia, 1954 = 100.)

31st December, 1939..	32.4	31.1	32.4	30.0	32.0	29.6	31.7
" " 1945..	39.6	38.9	38.4	37.4	38.7	37.3	38.9
" " 1950..	73.0	71.4	69.0	70.0	71.1	70.0	71.5
" " 1955..	108.2	104.7	100.4	100.9	106.6	104.2	105.3
" " 1960..	128.1	123.7	124.1	120.9	127.1	124.6	125.5

(a) Weighted average hourly rates of wage for all industrial groups except rural and shipping and stevedoring. See para. 4 (i) on previous page. (b) The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends.

(iii) *Adult Females—States.* The following table shows the weighted average minimum hourly rates of wage payable to adult female workers and index numbers of hourly rates in each State.

HOURLY WAGE RATES: ADULT FEMALES.

WEIGHTED AVERAGE MINIMUM HOURLY RATES PAYABLE AND INDEX NUMBERS OF HOURLY RATES.

Date.	N.S.W.	Vic.	Q'land.	S. A.	W. A.	Tas.	Aust.
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RATES OF WAGE.(a)

(Pence.)

31st December, 1951..	52.30	51.90	48.72	51.37	49.02	50.23	51.51
" " 1953..	60.87	60.69	56.88	60.07	57.37	59.81	60.12
" " 1955..	63.65	63.43	58.72	60.88	59.65	60.67	62.59
" " 1957..	67.90	67.82	62.29	66.23	64.08	66.43	66.93
" " 1960..	79.31	74.33	72.32	73.27	75.74	72.37	76.13

INDEX NUMBERS.

(Base: Weighted Average Hourly Wage Rate for Australia, 1954 = 100.)

31st December, 1951..	86.9	86.2	80.9	85.3	81.4	83.4	85.6
" " 1953..	101.1	100.8	94.5	99.8	95.3	99.3	99.9
" " 1955..	105.7	105.3	97.5	101.1	99.1	100.8	104.0
" " 1957..	112.8	112.6	103.5	110.0	106.4	110.3	111.2
" " 1960..	131.7	123.5	120.1	121.7	125.8	120.2	126.4

(a) The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends.

5. *Weighted Average Standard Weekly Hours of Work.*—The 40-hour week has operated in Australia generally from 1st January, 1948, and in New South Wales from 1st July, 1947 (see para. 3 (iii), page 431). However, as stated in para. 4 (i) on page 431, the number of hours constituting a full week's work (excluding overtime) differs between occupations and/or between States. The weighted average standard hours of work (excluding

overtime) prescribed in awards, determinations and agreements for a full working week, in respect of adult male workers in all industrial groups except Rural, and Shipping and Stevedoring, at 31st December, 1960, were:—New South Wales, 39.95; Victoria, 39.97; Queensland, 39.98; South Australia, 39.96; Western Australia, 39.89; Tasmania, 39.97; Australia, 39.96. Corresponding figures for adult female workers at 31st December, 1960 were:—New South Wales, 39.53; Victoria, 39.81; Queensland, 39.70; South Australia, 39.77; Western Australia, 39.78; Tasmania, 39.56; Australia, 39.67.

§ 3. Average Weekly Earnings.

1. Average Weekly Total Wages and Salaries Paid and Average Earnings, All Industries.—

The following figures are derived from employment and wages recorded on Pay-roll Tax returns, from other direct collections and from estimates of the unrecorded balance. Pay of members of the Defence Forces is not included. The figures are not seasonally adjusted, but a seasonally adjusted quarterly index of average weekly earnings is shown in para. 2 below. Corresponding figures for each quarter are published in the *Monthly Review of Business Statistics* and the *Monthly Bulletin of Employment Statistics*.

AVERAGE WEEKLY TOTAL WAGES AND SALARIES PAID AND AVERAGE EARNINGS.(a)

Year.	N.S.W. (b)	Vic.	Qld.	S. Aust. (c)	W. Aust.	Tas.	Aust.
AVERAGE WEEKLY TOTAL WAGES AND SALARIES PAID. (£'000.)							
1955-56	19,764	14,144	6,033	4,330	3,104	1,521	48,896
1956-57	20,943	14,925	6,457	4,507	3,177	1,635	51,644
1957-58	21,664	15,510	6,585	4,635	3,284	1,671	53,349
1958-59	22,414	16,240	6,970	4,823	3,347	1,725	55,519
1959-60	24,816	18,123	7,441	5,392	3,618	1,878	61,268
AVERAGE WEEKLY EARNINGS PER EMPLOYED MALE UNIT.(d) (£.)							
1955-56	18.92	18.78	16.49	17.88	16.92	17.75	18.28
1956-57	19.89	19.70	17.50	18.28	17.48	18.79	19.16
1957-58	20.44	20.22	17.94	18.68	18.05	18.95	19.67
1958-59	21.04	20.69	18.63	19.10	18.19	19.33	20.19
1959-60	22.77	22.28	19.89	20.61	19.46	20.71	21.76

(a) Includes, in addition to wages at award rates, earnings of salaried employees, overtime earnings, over-award and bonus payments, etc. (b) Includes the Australian Capital Territory. (c) Includes the Northern Territory. (d) Total wages and salaries, etc., divided by total civilian employment expressed in male units. Male units represent total male employment plus a proportion of female employment based on the approximate ratio of female to male earnings. As it is not possible to estimate the ratio of female to male earnings in the several States, the same ratio has been used for each State. Because the actual ratio may vary between States, precise comparisons between average earnings in different States cannot be made on the basis of the figures above.

2. Average Weekly Earnings Index Numbers.—The following table shows, for "All Industries" and for "Manufacturing", the movement in average weekly earnings from 1947-48 to the March Quarter, 1961. The "All Industries" index is based on Pay-roll Tax returns and other data. The index for manufacturing industries for the years 1947-48 to 1959-60 is based on the average earnings of male wage and salary earners employed in factories as disclosed by annual factory censuses (see Chapter VI.—Manufacturing Industry, § 8, para. 2 (iii); figures subsequent to June, 1960, are preliminary estimates based on Pay-roll Tax returns.

The index numbers show for "All Industries" and "Manufacturing" the movement in average earnings over a period of time. However, they do not give, at any point of time, a comparison of actual earnings in the two groups. The base of each series is the year 1953-54 = 100 and both series have been seasonally adjusted.

AVERAGE WEEKLY WAGE EARNINGS(a) INDEX NUMBERS: AUSTRALIA.

SEASONALLY ADJUSTED.

(Base of each Series: 1953-54 = 100.)

Year.	All Industries.(b)	Manufacturing.	Quarter.	All Industries.(b)	Manufacturing.
1947-48.. ..	47.5	48.0	1958-59—September Quarter	123.6	124.2
1948-49.. ..	53.9	54.3	December ..	124.5	126.0
1949-50.. ..	59.3	60.0	March ..	124.3	125.4
1950-51.. ..	71.1	72.0	June ..	125.5	126.8
1951-52.. ..	87.1	88.4			
1952-53.. ..	95.2	95.4	1959-60—September ..	129.7	131.8
			December ..	130.5	132.7
1953-54.. ..	100.0	100.0	March ..	135.5	137.5
1954-55.. ..	105.4	106.9	June ..	138.5	139.5
1955-56.. ..	112.2	113.8			
1956-57.. ..	118.2	118.3	1960-61—September ..	138.4	140.1
1957-58.. ..	121.3	122.0	December ..	141.5	141.6
1958-59.. ..	124.4	125.6	March ..	141.4	142.3
1959-60.. ..	133.4	135.4			

(a) See note (a) to table on previous page. (b) Average earnings per male unit employed. Male units represent total male employment plus a proportion of female employment based on the approximate ratio of female to male earnings.

§ 4. Survey of Wage Rates and Earnings, September, 1960.

A statistical survey of the wage structure of Australia was undertaken by this Bureau towards the end of 1960. The object of the survey was to obtain information as to marginal rates of wage and actual weekly earnings of adult male employees (excluding part-time and casual employees) for the last pay-period in September, 1960.

Information as to marginal rates of wage and total weekly earnings, obtained from the survey, will be found in the Appendix to this Year Book.

§ 5. Basic Wages in Australia.

1. **General.**—The concept of a "basic" or "living" wage is common to rates of wage determined by industrial authorities in Australia. Initially the concept was interpreted as the "minimum" or "basic" wage necessary to maintain an average employee and his family in a reasonable state of comfort. However, it is now generally accepted "that the wage should be fixed at the highest amount which the economy can sustain and that the 'dominant factor' is the capacity of the community to carry the resultant wage levels".*

Under the Commonwealth Conciliation and Arbitration Act 1904-1960 (see page 423) the Commonwealth Conciliation and Arbitration Commission (previously the Commonwealth Court of Conciliation and Arbitration) may, for the purpose of preventing or settling an industrial dispute extending beyond the limits of any State, make an order or award "altering the basic wage (that is to say, that wage or that part of the wage, which is just and reasonable for an adult male [female], without regard to any circumstance pertaining to the work upon which, or the industry in which he [she] is employed) or the principles upon which it is computed".

* Commonwealth Arbitration Reports, Vol. 77, p. 494.

In the past, the Commonwealth Court of Conciliation and Arbitration held general basic wage inquiries from time to time and its findings applied to industrial awards within its jurisdiction. Prior to the decision of the Commonwealth Court of Conciliation and Arbitration, announced on 12th September, 1953, discontinuing the automatic adjustment of basic wages in Commonwealth awards in accordance with variations occurring in retail price index numbers, the relevant basic wage of the Commonwealth Court of Conciliation and Arbitration was adopted to a considerable extent by State Industrial Tribunals. In New South Wales and South Australia, the State industrial authorities adopted the relevant Commonwealth basic wage. In Victoria and Tasmania, where Wages Boards systems operate, no provision was included in the industrial Acts for the declaration of a basic wage, although, in the past, Wages Boards generally adopted basic wages based on those of the Commonwealth Court. In Queensland and Western Australia, the determination of a basic wage is a function of the respective State Industrial or Arbitration Courts and (subject to State law) they took into account the rates determined by the Commonwealth Court. Following the decision of the Commonwealth Court of Conciliation and Arbitration to discontinue automatic quarterly adjustments to the basic wage, the various State industrial authorities have determined State basic wages in accordance with the provisions of their respective State industrial legislation. Details of the action taken in each State and subsequent variations in State basic wages are set out in para. 5 (see pp. 449-54).

In addition to the basic wage, "secondary" wage payments, including margins for skill, loadings and other special considerations peculiar to the occupations or industry, are determined by these authorities. The basic wage, and the "secondary" wage, where prescribed, make up the "minimum" wage for a particular occupation. The term "minimum wage" as distinct from the basic wage is used currently to express the lowest rate payable for a particular occupation or industry. (See also para. 2. (iii) *Adult Males—Components of Total Wage Rate*, pp. 427-8.)

2. The Commonwealth Basic Wage.—(i) *Early Judgments.* The principle of a living or basic wage was propounded as far back as 1890, but it was not until 1907 that a wage, as such, was declared by a Court in Australia. The declaration was made by way of an order in terms of section 2 (d) of the Excise Tariff 1906 in the matter of an application by H. V. McKay that the remuneration of labour employed by him at the Sunshine Harvester Works, Victoria, was "fair and reasonable". Mr. Justice Higgins, President of the Commonwealth Court of Conciliation and Arbitration, defined the standard of a "fair and reasonable" minimum wage for unskilled labourers as that standard appropriate to "the normal needs of the average employee, regarded as a human being living in a civilized community".* The rate declared was 7s. a day or £2 2s. a week for Melbourne, the amount considered reasonable for "a family of about five".

The "Harvester" standard was adopted by the Commonwealth Court of Conciliation and Arbitration for incorporation in its awards, and practically the same rates continued until 1913, when the Court took cognizance of retail price index numbers, covering food and groceries and rent of all houses ("A" Series) for the 30 more important towns of Australia, which had been published by the Commonwealth Statistician for the first time in the preceding year. The basic wage rates for towns were thereafter varied in accordance with the respective retail price index numbers. Court practice was to equate the retail price index number 875 for Melbourne for the year 1907 to the "Harvester" rate of 42s. a week (or the base of the index (1,000) to 48s. a week). At intervals thereafter as awards came before it for review, the Court usually revised the basic wage rate of the award in proportion to variations in the retail price index. In some country towns, certain "loadings" were added by the Court to wage rates so derived to offset the effect of lower housing standards, and consequently of house rents, on the index numbers for these towns.

Over the period of its operation, the adequacy or otherwise of the "Harvester" standard was the subject of much discussion, the author of the judgment himself urging on several occasions the need for its review. During the period of rapidly rising prices towards the end of the 1914-18 War, strong criticism developed that this system did not adequately maintain the "Harvester" equivalent. A Royal Commission was appointed in 1919 to inquire as to what it would actually cost a man, wife and three children under fourteen years of age to live in a reasonable standard of comfort, and as to how the basic wage might be automatically adjusted to maintain purchasing power. The Commission's Reports were presented in 1920 and 1921. An application by the unions to have the amounts

* *Commonwealth Arbitration Reports*, Vol. 2, p. 3.

arrived at by the inquiry declared as the basic wage was not accepted by the Court because they were considerably in advance of existing rates, and grave doubts were expressed by members of the Court as to the ability of industry to pay such rates. Further details of the recommendations of the Commission were given in *Labour Report* No. 41, page 102.

The system of making automatic quarterly adjustments to the basic wage in direct ratio to variations in the retail price index ("A" Series) was first introduced in 1921. The practice then adopted was to calculate the adjustments to the basic wage quarterly on the index number for the preceding quarter. Previously, adjustments had been made sporadically in relation to retail price indexes for the previous calendar year or the year ended with the preceding quarter. The new method would have resulted in a basic wage lower than that to which employees would have been entitled had the previous practice been continued, and in 1922* the Court added to the basic wage a general loading of 3s. (known as the "Powers 3s."), "a sum . . . which did, to the extent of 3s. per week, relieve the employees from the detrimental effect so far as they were concerned of the change which the Court was then making in its method of fixing the basic wage".† This loading continued until 1934. The practice adopted by the Commonwealth Court in 1921 of making automatic quarterly adjustments continued until the Court's judgment of 12th September, 1953 (*see* page 438).

For a description of the several series of retail price indexes referred to in these paragraphs, *see* page 407 of this Chapter.

(ii) *Basic Wage Inquiries*, 1930-31, 1932, 1933. No change was made in the method of fixation and adjustment of the basic wage until the onset of the depression, which began to be felt severely during 1930. Applications were then made to the Court for some greater measure of reduction of wages than that which resulted from the automatic adjustments due to falling retail prices. The Court held a general inquiry, and, while declining to make any change in the existing method of calculating the basic wage, reduced all wage rates under its jurisdiction by 10 per cent. from 1st February, 1931. In June, 1932, the Court refused applications by employee organizations for the cancellation of the 10 per cent. reduction in wage rates. In May, 1933, the Court again refused to cancel the 10 per cent. reduction in wage rates, but decided that the existing method of adjustment of the basic wage in accordance with "A" Series retail price index numbers had resulted in some instances in a reduction of more than 10 per cent. In order to rectify this, the Court adopted the "D" Series of retail price index numbers for future quarterly adjustments of the basic wage.

Particulars of the 1930-31 and the 1932 Inquiries may be found in *Labour Report* No. 22, pages 45-8 and of the 1933 Inquiry in *Labour Report* No. 23, pages 45-6.

(iii) *Basic Wage Inquiry*, 1934. A summary of the judgment delivered on 17th April, 1934, was given in *Official Year Book* No. 29, page 545. Until this judgment, the "Harvester" standard, adjusted by variations in retail price index numbers, continued to be the theoretical basis of the wage of the Commonwealth Court. The new rate for the six capital cities was in effect the same as that previously paid under the "A" Series, without the "Powers 3s." and without the 10 per cent. reduction, which then ceased to operate.

Automatic quarterly adjustment of the basic wage was transferred from the "A" and the "D" Series to the "C" Series Retail Price Index. The base of the index (1,000) was taken by the Court as equal to 81s. a week. This gave rates as declared on this occasion for the capital cities on the basis of their respective index numbers ranging from 61s. for Brisbane to 67s. for Sydney and Hobart, the average wage for the six capital cities being 65s.

(iv) *Basic Wage Inquiry*, 1937. In May, 1937, the Commonwealth Court heard an application by the combined unions for an increase in the basic wage. The unions asked that the equivalent of the base (1,000) of the "C" Series Index be increased from 81s. to 93s., which on index numbers then current would have represented an average increase of about 10s. a week. The chief features of the judgment delivered on 23rd June were:—

(a) Amounts were added to the basic wage not as an integral, and therefore adjustable, part of that wage, but as "loadings" additional to the rates payable under the 1934 judgment, which were referred to in the judgment as the "needs" portion of the total resultant basic wages. These loadings, commonly referred to as "Prosperity" loadings, ranged, for capital cities, from 4s. to 6s., that for the six capitals being 5s.

* *Commonwealth Arbitration Reports*, Vol. 16, p. 32.

† *Ibid.*, p. 841.

(b) The basis of the adjustment of the "needs" portion of the wage in accordance with the variations shown by retail price index numbers was transferred from the "C" Series to a special "Court" Series based upon the "C" Series.

(c) Female and junior rates were left for adjustment by individual Judges when dealing with specific awards.

The main parts of the judgment were reprinted in Official Year Book No. 30, pages 564-75 and in *Labour Report* No. 28, pages 77-87.

(v) *Basic Wage Inquiry*, 1940. On 5th August, 1940, the Full Court commenced the hearing of an application by the combined unions for an increase in the existing basic wage by raising the value of 1,000 (the base of the "C" Series Index upon which the "Court" Series was based) from 81s. to 100s. a week, and the incorporation of the existing "Prosperity" loadings in the new rate mentioned. In its judgment of 7th February, 1941, the Court unanimously refused to grant any increase, owing mainly to the uncertainty of the economic outlook under existing war conditions. The application was stood over for further consideration. (See (vi) following.)

The Chief Judge stated: "The Court has always conceded that the 'needs' of an average family should be kept in mind in fixing a basic wage. But it has never, as the result of its own inquiry, specifically declared what is an average family, or what is the cost of a regimen of food, clothing, shelter and miscellaneous items necessary to maintain it in frugal comfort, or that a basic wage should give effect to any such finding. In the end economic possibilities have always been the determining factor . . . what should be sought is the independent ascertainment and prescription of the highest basic wage that can be sustained by the total of industry in all its primary, secondary and ancillary forms".*

The Chief Judge also suggested that the more logical system would be to grade the basic wage according to family responsibilities by means of a comprehensive system of child endowment, and that if a scheme of this nature were established, future fixations of the basic wage would be greatly simplified. (The Commonwealth Child Endowment Act came into operation on 1st July, 1941. For details see Chapter XVIII.—Welfare Services.)

(vi) "*Interim Basic Wage Inquiry*", 1946. As the result of (a) an application made by the Commonwealth Attorney-General for the restoration to the Full Court List of certain adjourned 1940 basic wage applications (see (v) above), (b) a number of fresh cases which had come to the Court since 1941, and (c) an application by the combined unions for an "interim" basic wage declaration, the Court commenced the hearing of this case on 25th November, 1946. Judgment was delivered on 12th December, 1946, whereby an increase of 7s. a week was granted in the "needs" portion of the basic wage then current, the rate for the six capital cities as a whole being increased from 93s. to 100s. a week. For automatic quarterly adjustments, a new "Court" Index (Second Series) (Base 1923-27 = 87.0) was adopted. All "loadings" on the basic wage were retained. Further particulars of this judgment may be obtained from *Labour Report* No. 38, page 79.

(vii) *Basic Wage Inquiry*, 1949-50. This finalized the case begun in 1940 and continued in 1946 (see above). In 1946, during the hearing of the Standard Hours Inquiry and following the restoration to the Full Court List of applications for an increased basic wage, the Chief Judge ruled that the claim for an increase in the basic wage should be heard concurrently with the "40-hour week" claims then before the Court. The unions, however, objected to this course being followed, and, on appeal to the High Court, that Court in March, 1947, gave a decision which resulted in the Arbitration Court proceeding with the "Hours" Case to its conclusion.

The Basic Wage Inquiry, 1949-50, finally opened in February, 1949, and the general hearing of the unions' claims was commenced on 17th May, 1949. Separate judgments were delivered on 12th October, 1950;† in the judgments, which were in the nature of general declarations, a majority of the Court (Foster and Dunphy JJ.) was of the opinion that the basic wage for adult males should be increased by £1 a week, and that for adult females should be 75 per cent. of the adult male rate. Kelly C.J., dissenting, considered that no increase in either the male or the female wage was justified.

* *Commonwealth Arbitration Reports*, Vol. 44, pp. 47-8.

† 68 C.A.R., p. 698.

The Court on 24th October and 17th and 23rd November, 1950, made further declarations concerning the "Prosperity" and other loadings. The "Prosperity" loading of 1937 (see page 436), which was being paid at rates of between 3s. and 6s. a week according to localities, was standardized at a uniform rate of 5s. a week for all localities and was declared to be an adjustable part of the basic wage, the "War" loadings were declared to be not part of the basic wage, and any other loading declared to be part of the basic wage ceased to be paid as a separate entity.

The new rates operated from the beginning of the first pay-period in December, 1950, in all cases being the rate based on the Court Index (2nd Series) for the September quarter, 1950, plus a flat-rate addition of £1, together with the standardized "Prosperity" loading of 5s. The new basic wage rate for the six capital cities (weighted average) was £8 2s., comprising £6 17s. Court (2nd Series) plus 5s. uniform "Prosperity" loading plus the £1 addition. The declaration provided that the whole of this basic wage would be subject to automatic quarterly adjustments as from the beginning of the first pay-period commencing in February, 1951, on the basis of the index numbers for the December quarter, 1950. For this purpose, the new rate of £8 2s. was equated to the "C" Series retail price index number 1,572 for the six capital cities (weighted average) for the September quarter, 1950. From this equation was derived a new "Court" Index (Third Series) with 103.0 equated to 1,000 in the "C" Series Index.

The basic wage rates operative from the beginning of the first pay-period commencing in December, 1950, were as follows (rates operative in November, 1950, in parentheses):—Sydney, £8 5s. (£7 6s.); Melbourne, £8 2s. (£7 3s.); Brisbane, £7 14s. (£6 15s.); Adelaide, £7 18s. (£6 17s.); Perth, £8 (£6 19s.); Hobart, £8 (£6 19s.); Six Capitals, £8 2s. (£7 2s.). Further particulars of the judgment may be found in *Labour Report* No. 39, page 81.

(viii) *Basic Wage and Standard Hours Inquiry, 1952–53.* On 5th August, 1952, the Commonwealth Court of Conciliation and Arbitration began hearing claims by the Metal Trades Employers' Association and other employers' organizations that (a) the basic wage for adult males be reduced; (b) the basic wage for adult females be reduced; (c) the standard hours of work be increased; (d) the system of adjusting the basic wages in accordance with variations occurring in retail price index numbers be abandoned; and by the Metal Trades Federation, an association of employees' organizations, that the basic wage for adult males be increased, which would also have resulted in increasing the amount, though not the proportion it bore to the basic wage for adult males, of the basic wage for adult females.

A number of Governments, organizations and other bodies obtained leave to intervene and in this role the Australian Council of Trade Unions supported the claims of the Metal Trades Federation.

The decision of the Court, announced on 12th September, 1953, was as follows:—the employers' applications for reduction of the basic wages for adult males and females and for an increase of the standard hours of work were refused; the employers' applications for omission or deletion of clauses or sub-clauses providing for the adjustment of basic wages were granted; and the unions' applications for increases of basic wages were refused.

The Court in the course of its judgment said that nothing had been put before it during the inquiry in support of a departure from its well-established principle that the basic wage should be the highest that the capacity of the community as a whole could sustain. If the Court is at any time asked to fix a basic wage on a true needs basis, the question of whether such a method is correct in principle and all questions as to the size of the family unit remain open.

In order to remove certain misconceptions about its function, the Court stated that it was neither a social nor an economic legislature, and that its function under section 25 of the Act was to prevent or settle specific industrial disputes. However, these must be settled upon terms which seem just to the Court, having regard to conditions which exist at the time of its decision.

The Court intimated that time would be saved in future inquiries if the parties to the disputes, in discussing the principle of the "capacity to pay", directed their attention to the broader aspects of the economy, as indicated by a study of employment, investment, production and productivity, overseas trade, overseas balances, the competitive position of secondary industry and retail trade.

In accordance with its decision to abolish the automatic adjustment clause from its awards, the Court, commencing on 21st October, 1953, amended all awards listed before it as a result of applications by one of the parties to the awards. Afterwards the Court, of its

own motion under section 49 of the Commonwealth Conciliation and Arbitration Act, listed those awards not the subject of an application by one of the parties and then proceeded to delete the clauses providing for the automatic adjustment of the basic wage.

The power of the Commonwealth Court of Conciliation and Arbitration to vary awards not the subject of an application by one of the parties was unsuccessfully challenged in the High Court of Australia.

For further particulars of the judgment, see *Labour Report* No. 46, page 64.

(ix) *Basic Wage Inquiry*, 1956. On 14th February, 1956, the Commonwealth Court of Conciliation and Arbitration commenced hearing an application for alteration of the basic wage in the following respects:—namely, for an increase in the basic wage to the amount it would have reached if automatic quarterly adjustments deleted by the Court in September, 1953, had remained in force; an increase of a further £1 in the basic wage; the re-introduction of automatic quarterly adjustments; and the abolition of what was known as the 3s. country differential. This application was regarded as a general application for variation of the basic wage in all awards of the Commonwealth Court of Conciliation and Arbitration.

All the claims made by the unions were opposed by the respondent employers. The Commonwealth Government appeared not as a party to the dispute but in the public interest and supplied much factual and statistical material in a review of the economy from 1953. However, the Commonwealth opposed the re-introduction of automatic adjustments. The States of New South Wales, Queensland, Western Australia and Tasmania supported the unions' claims for the re-establishment of the system of automatic adjustments and the raising of the basic wage to the levels indicated by the current "C" Series index numbers, but the State of South Australia opposed these claims. The State of Victoria neither supported nor opposed the unions' claims.

The judgment was delivered on 26th May, 1956. The Court rejected each claim made by the unions, but decided to increase the adult male basic wage by 10s. a week, payable from the beginning of the first pay-period in June. As a result of this decision, the basic wage for adult females was increased by 7s. 6d. a week with proportionate increases for juniors of both sexes and for apprentices.

The Court took the view that its decision in 1953 to abandon the system of quarterly adjustments was clearly right and that "so long as the assessment of the basic wage is made as the highest which the capacity of the economy can sustain, the automatic adjustment of that basic wage upon price index numbers cannot be justified, since movements in the index have no relation to the movements in the capacity of the economy".* The Court was satisfied "that a basic wage assessed at the highest amount which the economy can afford to pay cannot in any way be arrived at on the current price of listed commodities. There is simply no relationship between the two methods of assessment".†

"The Court's examination of the economy and of its indicators—employment, investment, production and productivity, overseas trade, overseas balances, the competitive position of secondary industry and retail trade—and its consideration of inflation and its possible disastrous extension has led to the Court's conclusion that the nation now has not the capacity to pay a basic wage of the amount to which automatic quarterly adjustments would have brought it".‡

In the course of setting out the reasons for its decision, the Court considered the period over which the capacity of the economy should be assessed, and concluded: "A year has been found almost universally to be a sensible and practicable period for such a purpose in the case of trading institutions the world over. The Court considers—fortified by the Judges' experience of considering from time to time Australia's capacity—that a yearly assessment of the capacity of Australia for the purpose of fixing a basic wage would be most appropriate. We would encourage any steps to have the Court fulfil such a task each year".§

For further details, see *Labour Report* No. 46, page 67.

(x) *Basic Wage Inquiry*, 1956–57. On 13th November, 1956, the Commonwealth Conciliation and Arbitration Commission in Presidential Session commenced to hear claims for alteration of the basic wage prescribed in the Metal Trades Award, as follows:—For the increase of the basic wage to the amount it would have reached if there had remained in the award provisions for automatic quarterly adjustments, and for the reinsertion in the award of the provision for automatic quarterly adjustments.§ In accordance with past practice this application was treated by the Commission as a general application for alteration of the basic wage in all Federal awards.

* *Commonwealth Arbitration Reports*, Vol. 84, p. 175.
§ 87 C.A.R., p. 439.

† *Ibid.*, p. 176.

‡ *Ibid.*, p. 177.

The unions' claims were opposed by the respondent employers. The Australian Council of Salaried and Professional Associations intervened in support of the applicant unions. Victoria and South Australia were the only States to appear before the Commission and the Attorney-General of the Commonwealth intervened in the public interest. Victoria neither supported nor opposed the application by the unions. South Australia opposed the unions' claims and suggested that, if an increase in the basic wage were granted, the Commission should decide on the increase to be added to the six capitals basic wage and then apportion that increase amongst the six capital cities on a basis accurately reflecting the differences in their cost of living. The Commonwealth opposed the restoration of the automatic adjustment system, whatever index were used for this purpose.

The Commission decided that before it could reach a decision it would have to examine, in detail, three main issues, namely: (i) should the system of automatic adjustment be restored? (ii) should there be an increase in the basic wage, and, if so, of what amount? and (iii) should the increase, if there be one, be of a uniform amount, or should it be variable as between capital cities?

After hearing submissions by counsel for the unions that automatic quarterly adjustments of the basic wage should be restored and argument as to the appropriateness of using the "C" Series index for this purpose, the Commission reaffirmed the decision of the Court in 1953, which, it said, "was primarily based on the view that there is no justification for automatically adjusting in accordance with a price index a wage assessed as the highest that the capacity of the community as a whole can sustain."* Accordingly, the claim for restoration of automatic quarterly adjustments was refused.

The Commission, having considered all aspects of the state of the economy, decided that the basic wages in Federal awards should be increased and that the increase to the six capital cities basic wage should be 10s. a week for adult males, to come into effect from the first pay-period to commence on or after 15th May, 1957. The basic wage for adult females was increased by 7s. 6d., with proportionate increases for juniors and apprentices.

The historical background of differential rates of basic wage for respective cities and towns was examined by the Commission and it acknowledged that the Federal basic wage had two components. The first and greater component differed for each capital city and represented a rate of wage calculated by the use of "C" Series retail price index numbers for the June quarter, 1953, and the second component, common to all places, was the uniform 10s. awarded by the Court in 1956. On the question of whether the increase should be of a uniform amount, the alternative open to the Commission appeared to be either to follow what the Court did in 1956, or to recalculate the inter-capital-city differentials of the newly-fixed standard basic wage according to the latest "C" Series index numbers. The Commission decided to grant an increase of a uniform amount.

Judgment was delivered on 27th April, 1957. The Commission advised that it approved an annual review of the basic wage and would be available for this purpose in February, 1958. However, although favouring an annual review of the basic wage, the Commission considered that "it would not be proper for it nor would it wish to curtail the existing right of disputants to make an application at whatever time they think it necessary to do so".†

A more detailed summary of the judgment may be found in *Labour Report* No. 46, pages 68-71.

(xi) *Basic Wage Inquiry*, 1958. On 18th February, 1958, the Conciliation and Arbitration Commission in Presidential Session commenced hearing an application by respondent unions for variation of the Metal Trades Award, by increasing the amounts of basic wage prescribed therein to the figure each would have reached had the quarterly adjustment system based on the "C" Series retail price index numbers been retained, plus an addition of 10s., and by making provision for future adjustment of each of the new amounts at quarterly intervals by the application thereto of the same index numbers.‡

The claims for the restoration of quarterly adjustments and for basic wage increases were opposed by private employers and by the State of South Australia, which also contended that as the cost of living was much lower in Adelaide than in Melbourne and Sydney, greater disparities in basic wage rates than then existed should be determined if, against its submission,

* *Commonwealth Arbitration Reports*, Vol. 87, p. 445.
No. A6079, p. 4.

† *Ibid.*, Vol. 87, p. 459.

‡ *Print*

any general increase in the basic wage were decided upon. Tasmania, the only other State represented, made no submissions. The Attorney-General of the Commonwealth intervened in the public interest under section 36 (1) of the Conciliation and Arbitration Act and leave to intervene was granted to the Professional Officers' Association of the Commonwealth Public Service, three other organizations of medical and scientific workers employed in the Commonwealth Public Service and the Australian Council of Salaried and Professional Associations.

In its judgment, delivered on 12th May, 1958, the Commission rejected the submission by counsel for the Professional Officers' Association "that if the Commission is satisfied that there is in the community capacity to pay a higher wage bill, consideration should be given to the question whether that increased capacity should be reflected in an increased basic wage only or extended also to the marginal or secondary contents of aggregate wages and salaries".* The Commission also rejected the submission by counsel for the Australian Council of Salaried and Professional Associations that when the Commission looked at the capacity of industry to pay and gave an increase in the basic wage, it "always kept something in hand for a marginal claim which would probably be coming up".†

The claim of the unions for the restoration of the 1953 basic wage standard was rejected by the Commission on the same grounds as in its 1957 judgment, i.e., that it was unsafe to assume that the economy could sustain the 1953 rate as a "standard" in real terms.

The Commission then considered the three specific issues before it, namely, (a) should the system of automatic adjustments be restored? (b) should the basic wage be increased, and if so, by what amount? and (c) should there be uniform or disparate increases?

(a) *Should the System of Automatic Adjustments be Restored?* Counsel for the unions submitted that the unions still regarded the "C" Series index as a proper guide for the determination of basic wage levels, but that if this contention were unacceptable to the Commission, as it had been in the three previous inquiries, there should be an immediate decision upon principle and later, if need be, an inquiry in an effort to ascertain a proper price index. He also submitted that there should be, from time to time, additions to wages to afford to workers their proper share of increased productivity and efficiency and that although the unions had never claimed that increments for increased productivity could under present circumstances be made by way of automatic adjustment, the objective of wage increases commensurate with price increases could best be achieved by the use of an automatic adjustment system.

After having considered the submissions and without hearing arguments against the proposition, the Commission, on 21st February, 1958, rejected the application for the restoration of automatic adjustments and for a deferred inquiry thereon. In the reasons for its judgment, the Commission stated that there was nothing in the submission to justify a departure from the decisions of 1953, 1956 and 1957 to reject automatic wage adjustments. The Commission also again expressed the opinion that a yearly assessment of the capacity of Australia for the purpose of fixing a basic wage would be most appropriate.

(b) *Should the Basic Wage be Increased and, if so, by what Amount?* After hearing arguments for and against an increase in the basic wage rates, and submissions, mainly statistical, on behalf of the Commonwealth, the Commission was unanimously of the opinion that the position of the economy regarded as a whole was such as to justify an increase in the basic wage, but a difference of opinion existed as to what the amount of the increase should be. A majority of the members, namely, Kirby C.J. and Gallagher J., considered that it was undesirable in the interests of all to grant an increase higher than 5s.; Wright J., on the other hand, considered that a basic wage level substantially higher than that proposed by the majority was justified. Under section 68 of the Conciliation and Arbitration Act 1904-1956, the question was decided according to the decision of the majority. Accordingly the decision of the Commission was that the rates of basic wage for adult males under Federal awards should each be increased by 5s. a week.

(c) *Uniform or Disparate Increases.* The South Australian Government submitted that economically there was no scope at all for a basic wage increase anywhere in Australia; and, as in the 1957 inquiry, again pursued the question of inter-city differentials in those awards where it applied, as an answer to the union claim that the amount of the basic wage in Adelaide should be calculated by reference to the "C" Series retail price index numbers for that city. The substance of the State's case on inter-city differentials was that the actual cost of living was so much lower in Melbourne and Sydney that greater

* Print No. A6079, p. 5.

† Ibid., p. 7.

disparities in basic wage rates than then existed should be determined by the Commission, if any general increase in the basic wage were decided upon. Subject to a stipulation that no reduction should be made in the existing basic wage rate for Adelaide, counsel for the South Australian Government claimed that the rate should be approximately 10 per cent. below the rate fixed for Sydney instead of approximately 5 per cent. below, as it then was. He also claimed that the proposal had the support of South Australian employers, but in the Commission's view the employers had not spoken unitedly or unanimously, nor had anyone supported the proposal as put to the Commission. It concluded that the claim must be rejected on the ground that it would not be wise or just to apply it in South Australia in view of the fact that it was neither sought nor supported by any other party, and its application to the Government and its instrumentalities alone was not sought. The Commission indicated that the issues involved in inter-city differential wage rates were complex and could not be decided after a brief hearing.

The decisions of the Commission were as follows:—The claim for restoration of automatic quarterly adjustments and the claim of the South Australian Government for special treatment were refused; and the basic wages of adult male employees covered by Federal awards were increased by a uniform amount of 5s. per week, to operate from the beginning of the first pay-period commencing on or after 21st May.* As a result, the basic wage for adult females was increased to 75 per cent. of the new basic wage for adult males with proportionate increases for juniors and apprentices of both sexes.

(xii) *Basic Wage Inquiry, 1959.* On 24th February, 1959, the Conciliation and Arbitration Commission in Presidential Session commenced hearing an application by respondent unions for the following variations of the existing Metal Trades Award, namely:—"By increasing the amounts of basic wage prescribed therein for respective cities, towns and localities to the figure they each would have reached had the quarterly adjustment system based on the "C" Series retail price index numbers been retained, plus an addition of 10s. to each basic wage, and by making provision for future adjustment of each of the new amounts at quarterly intervals by the application thereto of the same index numbers."†

A large number of applications for similar variation of other awards were ordered to be treated as involved in the inquiry and as such to be decided upon the evidence, material and submissions made from the beginning of the hearing.

The application of the unions was opposed by private employers generally, and by the State of South Australia and two of its instrumentalities. Tasmania was the only other State represented, and it appeared in support of the application of the unions in regard to the increase of the basic wage to the amount it would have reached had the adjustment system been retained and the restoration of that system. Counsel for the Attorney-General of the Commonwealth, who intervened pursuant to his statutory right, submitted on behalf of the Commonwealth that the application for restoration of the automatic adjustment system should be refused. The Commonwealth again supplied, for the benefit of the Commission and the parties, economic and statistical information and material. In addition, the Commonwealth, without making a particular submission as to whether there should be an increase, made a general submission on the state of the national economy.

The Australian Council of Salaried and Professional Associations was granted leave to intervene, and submissions were also presented on behalf of fixed income earners and pensioners generally.

Counsel for the employers also appeared for The Graziers Association of New South Wales and other organizations of employers in the pastoral industry to reduce the basic wage in the Pastoral Award, 1956, by £1 5s., being the aggregate amount of the increases granted by the Court in 1956 and the Commission in 1957 and 1958. The Commission decided to join these applications in the main hearing on 17th March, 1959, as a matter of procedure only, and without deciding affirmatively that the Commission as constituted for that hearing had power to grant them in whole or in part. At the conclusion on 5th May, 1959, of submissions in support of these applications and without calling upon counsel for the Australian Workers' Union in reply, the Commission stated that it would reject the applications for reduction of the basic wage in the Pastoral Award, and again indicated that the question of jurisdiction as to whether the Commission had the power to decide a different basic wage remained "undecided and open".

* Print No. A6079, p. 2.

† Print No. A6618, pp. 4 and 5.

On 5th June, 1959, the three Judges delivered separate judgments. On the question of whether the system of automatic quarterly adjustments should be restored, the members of the Commission were divided in opinion, and therefore the question was decided in accordance with the decision of the majority. The majority decision, namely, that of Kirby C.J. and Gallagher J., was that the claim of the unions for restoration of the said system should be refused. Foster J. dissented.

The members of the Commission were unanimous in the opinion that there should be an increase in the basic wage, but as to the amount of the increase they were divided in opinion as follows:—

The President, Kirby C.J., was of opinion that the increase should be 15s. a week, and that the increased basic wage should become payable as from the beginning of the first pay-period commencing on or after 11th June, 1959.

Foster J. was of opinion that the increase should be 20s. a week, payable as to 10s. as from the first pay-period in July, 1959, and as to the balance by increases of 2s. 6d. for four quarters commencing 1st January, 1960.

Gallagher J. was of opinion that the increase should be one of 10s. a week, and that the increased wage should become payable as from the date chosen by the President.

Foster J., while holding his opinion, decided to concur in the decision proposed by the President.

A summary of the separate reasons for judgment was published in Official Year Book No. 46, pages 437-9.

(xiii) *Basic Wage Inquiry*, 1960. On 16th February, 1960, the Conciliation and Arbitration Commission, constituted in Presidential Session by Kirby C.J. (President), Ashburner and Moore JJ. (Deputy Presidents), commenced hearing an application by respondent unions for the restoration to the Metal Trades Award of quarterly adjustments to the basic wage and for an increase in the amount of the basic wage. On the six capital cities rate the amount of the increase sought was 22s. a week. This amount was composed of two parts—firstly, an addition of 5s. a week to restore to the basic wage the same real value as it had in 1953, and, secondly, a further amount of 17s. representing the unions' minimum estimation of the increase in productivity which had occurred in the period since the automatic adjustment system was abolished.

The Commonwealth Government intervened in the public interest in accordance with the provisions of Section 36 of the Conciliation and Arbitration Act, and all States except New South Wales were represented. The Commonwealth Government again presented a detailed analysis of the economic situation of Australia, together with comments on fiscal and budgetary policy. It also announced its opposition to the unions' application both for restoration of automatic quarterly adjustments and for an increase in the basic wage.

The State of South Australia presented material to the Commission to show the effect which wage increases would have on its finances, and opposed the unions' application. Victoria, Queensland and Western Australia presented information to show how the finances of those States would be affected by wage increases, but neither supported nor opposed the claims of the applicants. Tasmania indicated that it supported the application for restoration of quarterly adjustments, but made no submissions in support of its attitude.

In its judgment, delivered on 12th April, 1960, the Commission refused the unions' application. A summary of the judgment is given in the following paragraphs.

In view of the submissions made by counsel for the employers, the Commission made the following observations regarding the role of Governments in basic wage proceedings:—
 "In its complex and difficult task of assessing the capacity of the economy the Commission welcomes whatever assistance it can get from parties and from interveners. Governments are in a special position to give the Commission a proper conspectus of the public sector of the economy, the state of which is an important factor for our consideration. They can also, of course, give us assistance in our task of reviewing the economy as a whole. It is a matter

for each Government concerned to decide whether it will appear before the Commission, and if so whether it will present material or state an attitude or both. It is obvious enough that the more comprehensive the material presented to the Commission by a Government, the greater the assistance the Commission derives from it, but it is not our province to attempt to influence Governments as to their attitude to basic wage cases."

During the proceedings, the general matter of the role of the "indicators" in basic wage cases was raised, and in its judgment the Commission made the following comment:—"The indicators originated as an attempt by the Commonwealth Court of Conciliation and Arbitration in 1953 to make more orderly the presentation of material in basic wage cases. Since then they have been used as a framework for the presentation of economic material to the Court and subsequently the Commission. As their name suggests they are, however, no more than indicators of the economy. They have never been regarded as more than that and it has not been the practice of the Commission or the Court before it to treat these indicators as some form of index by which the state of the economy should be measured in any mathematical way. They have not been treated as mutually exclusive and it has always been recognized that they interact on one another and can be looked at in various combinations. They have never, as far as the Commission is aware, been the means of excluding material from the Commission's consideration and it was never intended that they should have this result. The parties were asked to attempt to evaluate the indicators for the purpose of this hearing. This did not mean that the Commission was approaching its task by using any kind of index but it flowed from comment in earlier cases that the relative importance of different indicators might change from time to time." However, the Commission did not feel that it was necessary to treat Government finance and the general budgetary position of Governments as a separate indicator, as suggested by counsel for the employers, although it said that such material as had been presented on this matter had been taken into account.

The Commission further stated:—"We do not regard the indicators as immutable, but treat them as an aid to our task of assessing capacity. We realize that in that task we must examine as far as we can all relevant economic material and we should not circumscribe ourselves by any set of indicators. If parties or interveners desire us in future proceedings to reduce or expand the present set of indicators or to approach our examination of the economy in a different way they are at liberty to ask us to do so."

Application for Restoration of Quarterly Adjustments. Counsel for the unions criticized the decision in the 1953 inquiry to abolish automatic quarterly adjustments to the basic wage and also the decisions, in subsequent inquiries, against their reintroduction. He submitted that it would be inequitable and unjust not to restore the practice which existed for many years prior to 1953, of having the basic wage automatically adjusted each quarter in accordance with movements in a price index. He relied in particular on the 1934 basic wage judgment.

In refusing the application the Commission said:—"We must decide the question of automatic quarterly adjustments in the light of existing situations and practices. In 1934, the Court was dealing with a situation in which the basic wage was determined for an undefined period and to that wage it applied automatic quarterly adjustments. The Commission is considering a situation in which in practice the basic wage is each year re-assessed. The alternatives which emerge from the submissions in these proceedings are either the fixation of a basic wage for an undefined period, the money amounts of the wage being automatically adjustable by movements in a price index, or the fixation of a basic wage each year. In our view, bearing in mind the interest of employees, employers and the public generally, the second alternative is preferable, and the Commission should continue to fix that basic wage which it considers to be just and reasonable knowing that the amount which it fixes will be the basic wage for the ensuing twelve months and will then be reviewed. It is not, in our view, inequitable and unjust. . . . not to restore the system of automatic adjustments."

Application to Increase the Basic Wage. With regard to this part of the application, the Commission stated:—"It is appropriate first to describe shortly the basic wage and margins as elements of a total wage and the somewhat unusual setting in which the question of an increase in the basic wage comes up this year for consideration. The total wage paid to most workers under federal awards is composed of two elements, namely, the basic wage and a margin for skill, responsibility and the like. The existence of these two elements is a result of the history of federal wage fixation and has received legislative approval. The

legislation requires that the basic wage and margins be dealt with by differently constituted benches of this Commission. The basic wage may be altered only by the Commission in Presidential Session, that is, by a bench constituted by three or more judges. Margins may be altered by a single member of the Commission or by a full bench constituted by at least three members of whom at least one must be a judge. In the first instance applications for alterations of margins come before a single member of the Commission but on application by a party the President has power to direct that the matter be dealt with by a full bench if he is of opinion that it is of such importance that in the public interest it should be so dealt with. By such a direction the Metal Trades margins application of 1959 was dealt with by a full bench."

The Commission then went on to state briefly the recent history of basic wage and marginal fixation by the Commission and its predecessor, the Commonwealth Court of Conciliation and Arbitration. Firstly, the basic wage, following the abolition of quarterly adjustments in 1953, was increased by 10s. a week in 1956, 10s. in 1957, 5s. in 1958 and 15s. in 1959. Secondly, increases in margins in the metal trades industry in 1947 were followed generally throughout federal awards; the claims for general increases in margins in 1952 were rejected and there was then no increase in margins throughout federal awards; and in 1954, the Court granted increases in margins in the metal trades industry which, speaking generally, it intended were to be applied to margins throughout federal awards. "Between 1954 and 1959, with few exceptions, margins in the metal trades industry and in federal awards generally were not increased and there was no application for an increase in margins in the Metal Trades Award until 1959. Although in its decision granting increases in the Metal Trades Award the Commission stated that it did not intend that the increases in the Metal Trades Award should automatically flow into other awards and industries, in the result the amount of increase awarded in the Metal Trades decision was, by and large, spread throughout other awards both by consent and by determinations of State and federal tribunals. In the light of the history of marginal fixation since 1947, the expectation now is that the Commission will be asked to consider the question of general marginal increases every few years."

The Commission stated that so long as its decisions regarding metal trades margins are given general application and so long as the annual review of the basic wage continues, it follows that in one particular year the Commission constituted by a full bench of judges will review the basic wage and, constituted by a mixed bench, review margins. As a result, the bench fixing the basic wage will act with the knowledge or anticipation that another bench will also have to decide later in the same year whether it should increase margins, and the latter will be doing so in the light of the basic wage decision. "As far as the community is concerned, therefore, it is possible that the economy might be found capable of sustaining an increase in both the basic wage and margins. When this happens it follows that the economic and psychological effect of each increase is affected and indeed highlighted by the other. Such a year was 1959, when the basic wage was increased as from June by 15s., or an increase of 6 per cent., and margins were increased as from December by 28 per cent. of the amount of the margins existing as a result of the 1954 review by the Court. Together the 1959 increases approximated 8 to 10 per cent. of award wages."

The Commission is required by legislation to treat the basic wage and margins separately, but although constituted differently for each task, it must at the time of fixation of rates look forward to the period which its decision will cover; that is, a year for the basic wage and, generally speaking, a longer period for margins. In dealing with the application then before it the Commission had to decide whether the basic wage should again be increased, although less than a year had elapsed since increases were granted in both the basic wage and margins.

Counsel for the unions submitted that, in examining the state of the economy, the Commission should go back to the year 1952-53 as a proper starting point, and that since that year all the indicators customarily used by the Commission had shown significant improvement. However, in view of the Commission's conclusions in the case, it did not find it necessary to discuss the indicators.

Counsel for the employers submitted that, whatever might have been established about the indicators, there were two factors dominating the economic scene, namely, the two wage increases granted by the Commission in 1959, amounting, in his submission, to an increase of 10 per cent. in wages; and the lifting of import restrictions by the Commonwealth Government. As to the first, he submitted that the effect of the basic wage decision had not

been completely shown, and the effect of the margins decision had not been shown significantly or at all. Hence the whole of the economic material available to the Commission had to be discounted by the fact that the combined effect of those two judgments had not at that time been felt by the economy. As to the lifting of import restrictions, he contended that the effect of this governmental measure could not be forecast, but the likelihood was that there would be an appreciable increase in the amount of imports, which would render more difficult the task of local manufacturers, a task already made difficult by the wage increases in 1959.

The Commission had asked counsel for the Commonwealth whether an estimate could be provided for the increase in imports likely to occur as a result of the lifting of import restrictions. Counsel stated that no quantitative estimate could be made; however, the significance of the removal of import restrictions in this case was that it had come at a time when the effects of the 1959 wage increases had not been fully felt.

Opposing the application by the unions, counsel for the Commonwealth submitted that the situation of the economy, at the latest stage before the margins increase could be supposed to have had any great impact, appeared as one of heavy spending on consumer goods and services and on capital construction and equipment, of fast increasing employment and diminishing unemployment, of growing shortages of labour at key points, of ample money supplies and easy capital raisings, and of costs and prices rising quite steeply. The only moderating circumstances seemed to be that local output of manufactured goods appeared to have increased to some extent and it had been possible to raise the level of imports. This was the situation upon which the margins increases had supervened. Counsel estimated that their effect on the wages bill would probably be about £100 million, and that the direct cost of the 1959 basic wage increase had been about £65 million. He said:—"It is not to be doubted that these increases will raise costs and price levels significantly and that further secondary effects of that kind will follow upon them. They will also give a further strong stimulation to the demand for goods and services, and indeed have probably begun to do so already."

Indicating that the Commonwealth Government was at that time very much concerned about the problem of inflation, counsel stated:—"The Commonwealth's position in the present case is unambiguously clear. It is that having weighed all considerations which seem to it to be relevant to the present and prospective state of the economy, the Commonwealth is convinced that above all what is needed now is a firm rejection of any new measures that could add to current inflationary pressures, and time for the adjustment of the economy to the general wage increases awarded over the past twelve months."

The Commission considered that such a clear statement of the Commonwealth Government's attitude, supported by submissions and economic material, was a matter which it must seriously take into account.

In concluding the reasons for judgment the Commission stated:—"We accept the submission made by the private employers and by the Commonwealth Government that we should not award an increase in the basic wage, bearing in mind that employees under federal awards have in the past twelve months received substantial increases in both basic and secondary wages. It is our view that at the present time, before the effects of these previous wage increases have been reflected in the economy, we cannot find that its capacity is such that a further basic wage increase can be awarded.

We consider that it would be unsafe and perhaps dangerous to increase the basic wage at this point of time. We have formed this opinion with a full sense of the obligation which this Commission has to fix the basic wage from time to time at the highest amount that the economy can sustain so that the wage and salary earner may obtain his proper share of goods and services. On the other hand we are mindful of the danger to the whole community, including the wage and salary earner, of the basic wage being fixed at an amount which might increase inflation and upset the stability of the economy."

(xiv) *Differential Basic Wage Inquiries*, 1960. On 8th August, 1960, the Commonwealth Conciliation and Arbitration Commission commenced hearing claims by:—

(a) The Federated Engine Drivers and Firemen's Association of Australia to vary the Engine Drivers and Firemen's (General) Award by eliminating country differentials from basic wages prescribed therein.

(b) The Metal Industries Association of South Australia, the South Australian Chamber of Manufactures and the South Australian Employers Federation to vary the Metal Trades Award by providing that future basic wage increases for Adelaide should be 25 per cent. less than basic wage increases for Sydney until the Adelaide basic wage was 90 per cent. of the Sydney basic wage, and that the basic wage applicable in areas other than Adelaide, Whyalla and Iron Knob should be £13 8s. and should remain unchanged until the Adelaide rate reached £14.

Judgment was delivered on 14th December, 1960. The Commission granted the application to eliminate specified country differentials from the Engine Drivers and Firemen's (General) Award, the new basic wages to be payable from the beginning of the first pay-period commencing on or after 1st January, 1961. Other awards were adjusted similarly on application to the Commission. The employers' applications in respect of basic wages in South Australia were both rejected.

(xv) *Basic Wage Inquiry, 1961.* Particulars of the claims made by employer and employee organizations and the decision given will be found in the Appendix.

(xvi) *Rates Operative, Principal Towns.* The basic wage rates of the Commonwealth Conciliation and Arbitration Commission for adult males and females, operative as from the beginning of the first pay-period commencing on or after 7th July, 1961, were as shown in the following table:—

COMMONWEALTH BASIC WAGE: WEEKLY RATES (a), JULY, 1961.

City or Town.	Rate of Wage.		City or Town.	Rate of Wage.	
	Males.	Females.		Males.	Females.
	£ s. d.	£ s. d.		£ s. d.	£ s. d.
New South Wales—			Western Australia—		
Sydney ..	14 15 0	11 1 0	Perth ..	14 8 0	10 16 0
Newcastle ..	14 15 0	11 1 0	Kalgoorlie ..	14 15 0	11 1 0
Port Kembla—			Geraldton ..	15 1 0	11 5 6
Wollongong ..	14 15 0	11 1 0	Five Towns ..	14 9 0	10 16 6
Broken Hill ..	14 19 0	11 4 0			
Five Towns ..	14 14 0	11 0 6	Tasmania—		
Victoria—			Hobart ..	14 14 0	11 0 6
Melbourne ..	14 7 0	10 15 0	Launceston ..	14 10 0	10 17 6
Geelong ..	14 7 0	10 15 0	Queenstown ..	14 5 0	10 13 6
Warrnambool ..	14 7 0	10 15 0	Five Towns ..	14 12 0	10 19 0
Mildura ..	14 7 0	10 15 0	Thirty Towns ..	14 8 0	10 16 0
Yallourn(b) ..	14 13 6	11 0 0	Six Capital Cities	14 8 0	10 16 0
Five Towns ..	14 7 0	10 15 0			
Queensland—			Northern Territory—		
Brisbane ..	13 10 0	10 2 6	Darwin ..	15 7 0	11 10 0
Five Towns ..	13 11 0	10 3 0	South of 20th Parallel ..	14 14 0	11 0 6
South Australia—			Australian Capital Territory—		
Adelaide ..	14 3 0	10 12 0	Canberra ..	14 10 0	10 17 6
Whyalla and Iron Knob(c) ..	14 8 0	10 16 0			
Five Towns ..	14 2 0	10 11 6			

(a) Operative from the beginning of the first pay-period commencing on or after 7th July, 1961; female rates are 75 per cent. of male rates. (b) Melbourne rate plus 6s. 6d. loading for males; 75 per cent. of male rate for females. (c) Adelaide rate plus 5s. for males; 75 per cent. of male rate for females.

The following table shows the movements of this wage in all State capital cities and the six capital cities as a whole during the period 1939 to 1961.

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BASIC WAGE: WEEKLY RATES(a), CAPITAL CITIES, PRESCRIBED BY COMMON-WEALTH CONCILIATION AND ARBITRATION COMMISSION (b) FOR ADULT MALES.

Date Operative.(c)	Sydney.	Mel- bourne.	Brisbane.	Adelaide.	Perth.	Hobart.	Six Capitals.
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
September, 1939 ..	81 0	81 0	76 0	78 0	77 0	77 0	79 0
November, 1941 ..	89 0	88 0	84 0	84 0	85 0	85 0	87 0
„ 1942 ..	97 0	97 0	91 0	93 0	91 0	92 0	95 0
„ 1943 ..	99 0	98 0	93 0	94 0	94 0	95 0	97 0
„ 1944 ..	99 0	98 0	93 0	93 0	94 0	94 0	96 0
„ 1945 ..	99 0	98 0	93 0	93 0	94 0	94 0	96 0
„ 1946 ..	101 0	99 0	94 0	95 0	95 0	97 0	98 0
December, 1946 ..	108 0	106 0	101 0	102 0	102 0	103 0	105 0
November, 1947 ..	112 0	109 0	105 0	106 0	106 0	107 0	109 0
„ 1948 ..	122 0	120 0	115 0	116 0	116 0	118 0	119 0
„ 1949 ..	132 0	130 0	125 0	126 0	129 0	128 0	129 0
„ 1950 ..	146 0	143 0	135 0	137 0	139 0	139 0	142 0
December, 1950 ..	165 0	162 0	154 0	158 0	160 0	160 0	162 0
November, 1951 ..	207 0	199 0	185 0	195 0	197 0	199 0	200 0
„ 1952 ..	237 0	228 0	216 0	229 0	228 0	230 0	231 0
August, 1953 (d) ..	243 0	235 0	218 0	231 0	236 0	242 0	236 0
June, 1956 ..	253 0	245 0	228 0	241 0	246 0	252 0	246 0
May, 1957 (e) ..	263 0	255 0	238 0	251 0	256 0	262 0	256 0
May, 1958 (e) ..	268 0	260 0	243 0	256 0	261 0	267 0	261 0
June, 1959 (e) ..	283 0	275 0	258 0	271 0	276 0	282 0	276 0
July, 1961 (f) ..	295 0	287 0	270 0	283 0	288 0	294 0	288 0

(a) Rates include prosperity loadings where applicable. (b) Prior to 30th June, 1956, Commonwealth Court of Conciliation and Arbitration. (c) Rates operative from the beginning of the first pay-period in the month indicated, unless otherwise stated. (d) Automatic adjustment discontinued (see p. 438). (e) For date operative, see the relevant Basic Wage Inquiry (pp. 439-43). (f) Operative from the beginning of the first pay-period commencing on or after 7th July, 1961.

A table showing Commonwealth basic wage rates from 1923 to 1959 was published in *Labour Report* No. 47, pages 190-193.

3. Australian Territories.—In the Northern Territory, there are two basic wages operating, one in respect of areas north of the 20th parallel of South Latitude, generally referred to as the “Darwin” rate, and the other in respect of areas south of that parallel and extending down to the 26th parallel (the “Port Augusta” rate).

The basic wage rates payable as from the beginning of the first pay-period commencing on or after 7th July, 1961, were:—“Darwin” rate, adult males, £15 7s., adult females, £11 10s.; “Port Augusta” rate, adult males, £14 14s., adult females, £11 0s. 6d.

In addition to the above rates, special loadings were prescribed in Northern Territory awards following the fixation of the basic wage rates operative from November, 1951.

In the Australian Capital Territory, the rates payable as from the beginning of the first pay-period commencing on or after 7th July, 1961, were £14 10s. for adult males and £10 17s. 6d. for adult females.

Further details of basic wage rates in the Northern Territory and the Australian Capital Territory may be found in *Labour Report* No. 47, pages 56-62.

4. Basic Wage Rates for Females.—Reference should be made to *Labour Report* No. 47, (pp. 52-56) for an account of the fixation of minimum rates and basic wages for adult females by the Commonwealth Court of Conciliation and Arbitration. At the end of the 1949-50 Basic Wage Inquiry, the Commonwealth Court of Conciliation and Arbitration, by a majority decision, fixed the basic weekly wage for adult females at 75 per cent. of the corresponding male rate from the beginning of the first pay-period commencing in December, 1950. This percentage has continued to be prescribed in subsequent inquiries.

5. *State Basic Wages.*—(i) *New South Wales.* The first determination under the New South Wales Industrial Arbitration Act of a standard "living" wage for adult male employees was made on 16th February, 1914, by the Court of Industrial Arbitration. A Board of Trade, established in 1918, with power to determine the "living" wage for adult male and female employees in the State, made numerous declarations from 1918 to 1925, but ceased to function after the Industrial Arbitration (Amendment) Act 1926 transferred its powers to the Industrial Commission of New South Wales as from 15th April, 1926.

The adult male rate was determined on the family unit of a man, wife and two children from 1914 to 1925; a man and wife only in 1927, with family allowances for dependent children; and a man, wife and one child in 1929, with family allowances for other dependent children. However, with the adoption in 1937 of the Commonwealth basic wage, the identification of a specified family unit with the basic wage disappeared.

A table showing the variations in the living wages determined by the industrial tribunals of New South Wales up to 27th April, 1937, was published in earlier issues of the Official Year Book (see No. 37, page 481). From that date until November, 1955, the rates adopted followed the Commonwealth basic wage (see below).

Shortly after the Commonwealth Court of Conciliation and Arbitration announced its judgment in the 1937 Basic Wage Inquiry, the Government of New South Wales amended the Industrial Arbitration Act to make the State basic wage agree with the Commonwealth rate ruling in New South Wales, and to adopt, as far as practicable, the general principles of operation laid down by the Commonwealth Court.

The principle of supplementing wages by a payment in respect of dependent children under fourteen years of age was operative in New South Wales from July, 1927, until superseded by the Commonwealth Government Scheme operative from 1st July, 1941. A brief account of the main features of the system was given in Official Year Book No. 37, pages 485-6.

Further amendments to the Industrial Arbitration Act were made in 1950 to give effect to the new rates declared by the Commonwealth Court of Conciliation and Arbitration in the 1949-50 Basic Wage Inquiry.

Differential basic wage rates for country areas (except Broken Hill) and for employees under Crown awards were eliminated by an amendment of the Industrial Arbitration Act in 1951.

The decision of the Commonwealth Court of Conciliation and Arbitration in September, 1953, to discontinue the system of automatic adjustment of the basic wage consequent on changes in the "Court" Series retail price index numbers was considered by the New South Wales Industrial Commission. On 23rd October, 1953, it certified that there had been an alteration in the principles of fixation of the basic wage, and instructed that the automatic adjustment clause be deleted from awards, etc., within its jurisdiction.

As a result, the basic wages applicable for the State and operative from the beginning of the first pay-period commencing in August, 1953, remained unchanged until November, 1955, the rates for New South Wales (excluding Broken Hill) during this period being £12 3s. a week for adult males and £9 2s. for adult females.

In October, 1955, the Industrial Arbitration Act 1940-1955 was amended to provide for the automatic adjustment of the existing basic wage each quarter, in accordance with the movements in the Commonwealth Statistician's "C" Series retail price index numbers. The first adjustment, based on the index number for the September quarter, 1955, represented the amount which would have been added to the basic wage if quarterly adjustments had not been suspended, and was made payable from the beginning of the first pay-period in November, 1955. The rates then payable were £12 13s. for adult males and £9 9s. 6d. for adult females.

Automatic quarterly adjustments were made for each subsequent quarter and the State basic wage payable in New South Wales (except Broken Hill) from the first pay-period in August, 1961, was £15 2s. for adult males and £11 6s. 6d. for adult females.

The Industrial Arbitration Act was further amended by the Industrial Arbitration (Female Rates) Amendment Act (No. 42, 1958) which became operative on 1st January, 1959. This Act defined the existing basic wage for adult females as being 75 per cent. of the male basic wage. Provision was also made for equal pay for males and females in certain circumstances. Where the Industrial Commission or a Conciliation Committee is satisfied that male and female employees are performing work of the same or a like nature and of equal value, they shall prescribe the same marginal or secondary rates of wage. The basic wage for these adult females was prescribed as 80 per cent. of the appropriate basic wage for adult males as from 1st January, 1959. Thereafter, the basic wage was to be increased annually by 5 per cent., so that on 1st January, 1963, it will be the same as that for adult males.

(ii) *Victoria.* There is no provision in Victorian industrial legislation for the declaration of a State basic wage. Wages Boards constituted from representatives of employers, employees and an independent chairman, for each industry group or calling, determine the minimum rate of wage to be paid in that industry or calling. In general, these Boards have adopted a basic wage in determining the rate of wage to be paid.

By an amendment to the Factories and Shops Act in 1934, Wages Boards were given discretionary power to include in their determinations appropriate provisions of relevant Commonwealth Awards. A further amendment to this Act in 1937 made it compulsory for Wages Boards to adopt such provisions of Commonwealth Awards. The 1937 Act, as amended, also gave Wages Boards power to adjust wage rates, "with the variation from time to time of the cost of living as indicated by such retail price index numbers published by the Commonwealth Statistician as the Wages Board considers appropriate". The Wages Boards thus adopted the basic wages declared by the Commonwealth Court of Conciliation and Arbitration and followed that Court's system of adjusting the basic wage in accordance with variations in retail price index numbers.

After the Commonwealth Court of Conciliation and Arbitration discontinued the system of automatic adjustment of the Commonwealth basic wage in September, 1953, a number of Wages Boards met in November, 1953, and deleted references to these adjustments. However, an amendment to the Factories and Shops Act in November, 1953, required Wages Boards to provide for the automatic adjustment of wage rates in accordance with variations in retail price index numbers. From 1st July, 1954, the Factories and Shops Acts 1928-1953 were replaced by the Labour and Industry Act 1953. This was, in general, a consolidation of the previous Acts and retained the requirement providing for the automatic adjustment of wages in accordance with variations in retail price index numbers.

An amendment to the Labour and Industry Act proclaimed on 17th October, 1956, deleted the automatic adjustment provision and directed Wages Boards in determining wage rates to take into consideration relevant awards of, or agreements certified by, the Commonwealth Conciliation and Arbitration Commission. As a result of this legislation, the last automatic quarterly adjustment of the basic wage made was based on the variation in retail price index numbers for the June quarter, 1956, and was payable as from the beginning of the first pay-period in August, 1956. Following the judgment of the Commonwealth Conciliation and Arbitration Commission in the 1961 Basic Wage Inquiry, Wages Boards met in July and August, 1961 and varied their determinations by incorporating the new Commonwealth rates. The rates for Melbourne are £14 7s. a week for adult males and £10 15s. for adult females.

(iii) *Queensland.* The first formal declaration of a basic wage (£4 5s. for adult males) by the Queensland Court of Industrial Arbitration was gazetted on 24th February, 1921. Prior to this declaration, the rate of £3 17s. a week for adult males had been generally recognized by the Court in its awards as the basic or living wage. The Queensland Industrial Conciliation and Arbitration Act provides that any basic wage declared must at least maintain an employee, his wife and family of three children in a fair and average standard of comfort.

The rates declared by the Queensland Court at various dates are shown in the table on page 68 of *Labour Report* No. 47.

From 21st April, 1942, the Queensland Industrial Court adopted the practice of making quarterly declarations of the basic wage on the basis of variations in the "C" Series retail price index number for Brisbane.

The Queensland Industrial Court granted increases of 7s. and 5s. to the basic wages for adult males and adult females respectively, payable from 23rd December, 1946, following the "interim" basic wage judgment of the Commonwealth Court of Conciliation and Arbitration announced earlier in December, 1946.

Following the decision of the Commonwealth Court of Conciliation and Arbitration to increase the male and female basic wages from December, 1950, the Queensland Industrial Court conducted an inquiry as to what change, if any, should be made to the State basic wage for Queensland. The Industrial Court granted an increase of 15s. a week to both adult males and adult females, operative from 7th December, 1950. The new male rate was identical with the Commonwealth basic wage for the Brisbane metropolitan area. The basic wage payable to adult females was approximately 66 per cent. of the male rate.

In January, 1953, the Queensland Industrial Court departed from the practice established in 1942 of varying the basic wage in accordance with quarterly variations in the "C" Series of retail price index numbers. If the practice had been continued, a reduction of one shilling would have been made in the basic wage for adult males from January, 1953. The Court was not satisfied, however, that the movement in the "C" Series index for Brisbane for the December quarter, 1952 was a true representation or reflex of the economic position for Queensland as a whole and so declined to make any alteration to the then existing basic wage. Quarterly adjustments were made for the next four quarters and the basic wage became £11 5s. for adult males from 1st February, 1954.

Commencing in March, 1954, a Basic Wage Inquiry was conducted by the Court and in its judgment of 11th June, 1954, the Court stated that there would be no change in the basic wage rates declared for February, 1954. For the following four quarters the Court also decided not to vary the existing basic wage rates. However, after considering the "C" Series index number for the quarter ended 30th June, 1955, and its relation to the index number for the March quarter, 1955, the Court announced that, as these figures showed a continued upward trend of cost of living in 1955, the basic wage for adult males should be increased from £11 5s. to £11 7s. from 1st August, 1955. In this judgment, the Court emphasized that it held itself free whether or not to adjust the basic wage upwards or downwards in accordance with movements in the "C" Series retail price index numbers.

The Court examined the movement in these index numbers for each subsequent quarter and announced variations in the basic wage. On 22nd and 23rd April, 1958, the Court heard an application by combined unions for an immediate increase of £1 in the basic wage, on the grounds that a state of emergency existed with regard to the cost of living. In its judgment of 30th May, 1958, the Court stated that no emergency had been proved to exist and that there was no justification for discarding the "C" Series retail price index numbers. The application was therefore dismissed.

In December, 1960, the Court determined that as from 1st May, 1961, the basic wage for adult females should be 75 per cent. of that for adult males.

In its basic wage declaration of 25th January, 1961, the Court referred to the opinion given by the Commonwealth Statistician that the "C" Series Retail Price Index had become an unreliable measure of retail price changes in recent quarters and to the fact that for current statistical purposes variations in retail prices were measured by the Consumer Price Index. Taking into consideration all relevant factors including the approximate increase in price levels as disclosed by the Consumer Price Index, the Court decided to increase the basic wage for adult males by 4s.

A new Act, The Industrial Conciliation and Arbitration Act of 1961, was assented to on 11th April, 1961, and came into operation as from 2nd May, 1961. The Act established the Industrial Conciliation and Arbitration Commission, and provides that the Commission may from time to time make declarations as to the basic wage. However, all persons interested must be given an opportunity to be heard before any such general declaration can be made.

Following an inquiry, the Commission, in a decision issued on 24th May, 1961, increased the adult male basic wage by 4s. a week, which was approximately the amount of the increase indicated by the Consumer Price Index for March quarter, 1961.

The rates payable in the Southern Division (Eastern District) from 29th May, 1961, were £14 4s. for adult males and £10 13s. for adult females.

In addition to the basic wage for the Southern Division (Eastern District), which includes Brisbane, adult males in other areas receive district allowances. As from 2nd February, 1959, the allowances have been:—Southern Division (Western District) 10s. 6d., Mackay Division 9s., Northern Division (Eastern District) 10s. 6d., Northern Division (Western District) £1 12s. 6d. The allowances for adult females are not less than 75 per cent. of those for adult males.

(iv) *South Australia.* The Industrial Code, 1920–1958 provides that the Board of Industry shall after public inquiry declare the "living wages" to be paid to adult male and female employees. The Board has power also to fix different rates to be paid in defined areas.

The family unit was not specifically defined in the Code, but the South Australian Industrial Court in 1920 decided that the average employee in respect of whom the living wage is to be declared is a man with a wife and three children.

The first declaration by the Board of Industry was made on 15th July, 1921, when the living wage for adult male employees in the metropolitan area was determined at £3 19s. 6d. a week. A table showing the living wages declared from time to time was published on page 71 of *Labour Report* No. 47.

Following the "interim" increase in the "needs" basic wage of the Commonwealth Court of Conciliation and Arbitration announced on 13th December, 1946, the South Australian Government made a provision in the Economic Stability Act 1946 for the declaration by the Governor of a living wage based on the Commonwealth basic wage for Adelaide. This action was taken because the Board of Industry had made a determination on 5th September, 1946, and under the Industrial Code was not able to make a further determination for six months.

The Industrial Code Amendment Act, 1949 made provision for the quarterly adjustment of the living wage in accordance with the variations in the Commonwealth basic wage for Adelaide. In effect, this made the State living wage and the Commonwealth basic wage equal from the beginning of the first pay-period commencing in February, 1950. The prescribed adjustment to the female living wage was seven-twelfths of that made to the Commonwealth male basic wage. The Board of Industry retained power to amend the living wage, but any new living wage was to be adjusted quarterly as above.

Following the decision of the Commonwealth Court of Conciliation and Arbitration in the 1949-50 Basic Wage Inquiry, the South Australian Industrial Code was amended to provide for declarations of the living wage by proclamation to prevent unjustifiable differences between the State and Commonwealth rates of wage. By proclamation dated 30th November, 1950, the South Australian living wage in the metropolitan area was made identical with the December, 1950, rates fixed by the Commonwealth Court of Conciliation and Arbitration for the metropolitan area of South Australia. The female basic wage, which had been approximately 54 per cent. of the male basic wage, was increased to 75 per cent. of the corresponding male rate.

When the Commonwealth Court of Conciliation and Arbitration discontinued quarterly adjustments to Commonwealth basic wages in September, 1953, the South Australian living wage also ceased to be varied quarterly, and since that time has remained the same as the Commonwealth basic wage for Adelaide. Following the Commonwealth basic wage inquiries in 1956 and subsequent years, increases were made in the Commonwealth basic wage for adult males, with proportionate increases for adult females. Similar increases were made to the South Australian living wage by proclamation. The rates operative from 10th July, 1961, were £14 3s. for adult males and £10 12s. for adult females.

(v) *Western Australia.* The Industrial Arbitration Act 1912-1952 provides that the Court of Arbitration may determine and declare a basic wage at any time on its own motion and must do so when requested by a majority of industrial unions or by the Western Australian Employers' Federation, with the limitation that no new determination shall be made within twelve months of the previous inquiry.

The term "basic wage" is defined in the Act as "a wage which the Court considers to be just and reasonable for the average worker to whom it applies". In determining what is just and reasonable, the Court must take into account not only the "needs of an average worker", but also the "economic capacity of industry" and any other matters it deems relevant.

The Act provides that the Court of Arbitration may make adjustments to the basic wage each quarter, if the statement supplied by the State Government Statistician showing retail price index numbers and monetary equivalents in terms of the State basic wages indicates that there has been a variation of 1s. or more a week compared with the previous quarter. These adjustments apply from the dates of declaration by the Court.

The first declaration of the basic wage by the Court of Arbitration, after the authority to fix one was vested in the Court in 1925, was made on 11th June, 1926. The family unit is not specifically defined in the Act, but it has been the practice of the Court to take as a basis for its calculations a man, his wife and two dependent children. Since that date the principal inquiries have been those of 1938, 1947, 1950 and 1951. A table showing annual and special declarations of the basic wage by the Court of Arbitration is to be found in *Labour Report* No. 47, page 73.

Following the judgment of the Commonwealth Court of Conciliation and Arbitration in the 1949-50 Basic Wage Inquiry, the Western Australian Court of Arbitration resumed an inquiry which had been adjourned, to ascertain what change should be made in the State basic wage rates. In its judgment of 7th December, 1950, the Court decided that

the basic wage should be increased by £1 a week for adult males and by 15s. a week for adult females. As the result of a subsequent inquiry, the basic wage for adult females was increased from 1st December, 1951, to 65 per cent. of the corresponding male rate. This was subject to the condition that the increase in the basic wage should be offset by the reduction in or deletion of existing margins as specified by the appropriate award or determination.

Following the decision of the Commonwealth Court of Conciliation and Arbitration, in September, 1953, to discontinue quarterly adjustments to Commonwealth basic wages, the *Western Australian Court of Arbitration* exercised its discretionary power and declined to make any adjustments to the basic wage from November, 1953, to the June quarter, 1955.

However, from 9th August, 1955, the *Western Australian Court* decided to increase the adult male basic wage by 5s. 11d. a week for Perth and to make corresponding increases for other areas. No further change was announced in the basic wage until January, 1956, and for each subsequent quarter the Court has varied the State basic wages after considering the official statement supplied by the State Government Statistician, except in February, 1959, and February, 1960, when no change was made.

In a decision issued on 30th January, 1960, the Court, acting in recognition of an agreement between representatives of unions and employers, increased the basic wage for adult females from 65 per cent. to 75 per cent. of the adult male rate. The increased rates were payable from the beginning of the first pay-period commencing on or after the above date. Simultaneously, various awards of, and agreements registered with, the Court were varied to provide that where margins for adult females were equal to or greater than this increase in the female basic wage they would be correspondingly reduced, and where they were less than the amount of the increase they would be deleted.

The rates payable in the metropolitan area as from 1st May, 1961, were £14 19s. 3d. for adult males and £11 4s. 5d. for adult females.

(vi) *Tasmania*. A State basic wage is not declared in Tasmania. Wages Boards are constituted for a number of industries, from representatives of employers and employees and an independent chairman (who is common to all Wages Boards), and determine the minimum rate of wage payable in each industry. Until February, 1956, these Boards generally adopted the basic wages of the Commonwealth Court of Conciliation and Arbitration in determining the rate of wage to be paid.

The Wages Board Act gives Wages Boards power to adjust their wage rates in accordance with variations in the cost of living as indicated by retail price index numbers published by the Commonwealth Statistician. When the Commonwealth Court discontinued the system of automatic adjustments of the basic wage in September, 1953, the Chairman of the Wages Boards stated he was of the opinion that automatic adjustment clauses should be deleted from all Wages Boards determinations. Before Wages Boards met to consider this matter, the wage rates for all determinations were automatically adjusted upwards from the beginning of the first pay-period commencing in November. By early December, 1953, all Wages Boards had met and deleted the automatic adjustment clause from determinations and cancelled the adjustment increases payable from November.

Automatic quarterly adjustments in accordance with movements in retail price index numbers were reintroduced by Wages Boards in February, 1956, and the rate payable from the first pay-period in February restored the basic wage to the level it would have reached if quarterly adjustments had not been discontinued in 1953. Following a rise in the retail price index number for the March quarter, 1956, a further basic wage increase was payable from the first pay-period in May, 1956.

The Employers' Federation of Tasmania sought a conference to consider an application to adopt the basic wage promulgated by the Commonwealth Court of Conciliation and Arbitration on 25th May, 1956, and for the deletion of automatic quarterly adjustment of the basic wage from determinations of Wages Boards. As a result of this application, a compulsory conference of employer and employee representatives was held on 22nd and 25th June, 1956.

At the conclusion of the conference, the Chairman of the Wages Boards stated he was of the opinion that the adjustments should be suspended for a period in an endeavour to achieve some measure of stability. He also indicated that any Wages Board was competent by agreement between the representatives of employers and employees or majority decision to adopt the Commonwealth Court's basic wage or any other method of fixing the basic wage.

The majority of Wages Boards suspended automatic quarterly adjustments after the August, 1956, adjustment and wage rates remained unchanged until July, 1959, when the Commonwealth rates were adopted. Following the decision of the Commonwealth Conciliation and Arbitration Commission in July, 1961, to increase the basic wage, Wages Boards met during July, and incorporated the new rates in their determinations. The rates for Hobart then became £14 14s. for adult males and £11 0s. 6d. for adult females. During January, 1961, Wages Boards adopted the basic wage for Hobart as the uniform rate applicable throughout the State.

(vii) *State Basic Wage Rates.* The "basic" wage rates of State industrial tribunals, operative in May, 1960, and May, 1961, are summarized in the following table:—

STATE BASIC WAGES: WEEKLY RATES.

State.	May, 1960.			May, 1961.		
	Date of Operation.	Males.	Females.	Date of Operation.	Males.	Females.
	(a)	s. d.	s. d.	(a)	s. d.	s. d.
New South Wales—						
Metropolitan and Country, excluding Broken Hill	May, 1960	285 0	213 6	May, 1961	299 0	224 0
Broken Hill	May, 1960	283 0	212 0	May, 1961	295 0	221 0
Victoria(b)	(c)	275 0	206 0	(c)	275 0	206 0
Queensland—						
Southern Division (Eastern District), including Brisbane ..	2.5.60	271 0	186 0	29.5.61	284 0	d213 0
Southern Division (Western District)	2.5.60	281 6	191 3	29.5.61	294 6	d221 0
Mackay Division	2.5.60	280 0	190 6	29.5.61	293 0	d219 9
Northern Division (Eastern District)	2.5.60	281 6	191 3	29.5.61	294 6	d221 0
Northern Division (Western District)	2.5.60	303 6	202 3	29.5.61	316 6	d237 6
South Australia(e)	15.6.59	271 0	203 0	15.6.59	271 0	203 0
Western Australia—						
Metropolitan Area	2.5.60	286 4	214 9	1.5.61	299 3	224 5
South-West Land Division ..	2.5.60	283 1	212 4	1.5.61	297 8	223 3
Goldfields and other areas ..	2.5.60	278 10	209 2	1.5.61	292 0	219 0
Tasmania(b)	July, 1959(f)	282 0	211 6	July, 1959(f)	282 0	211 6

(a) Where dates are not quoted, wage rates operate from the beginning of the first pay-period commencing in the month shown. (b) No basic wage declared. Rates shown are those adopted by most Wages Boards.

(c) During June and July, 1959, Wages Boards varied determinations by adopting the Commonwealth basic wage rate. (d) The female basic wage rate was increased to 75 per cent. of the male basic wage rate from 1st May, 1961.

(e) The "living wage" declared for the metropolitan area is also adopted for country areas, except at Whyalla where a loading of 5s. a week is generally payable. (f) Wages Boards adopted the Commonwealth basic wage rate from July, 1959.

§ 6. Wage Margins.

1. *General.*—Wage margins have been defined as "Minimum amounts awarded above the basic wage to particular classifications of employees for the features attaching to their work which justify payments above the basic wage, whether those features are the skill or experience required for the performance of that work, its particularly laborious nature, or the disabilities attached to its performance".*

Prior to 1954, the Commonwealth Court of Conciliation and Arbitration had not made any general determination in respect of wage margins, but general principles of marginal rate fixation had been enunciated by the Court in the Engineers' Case of 1924, the Merchant Service Guild Case of 1942 and the Printing Trades Case of 1947.

2. *Metal Trades Case, 1954.*—The Amalgamated Engineering Union, the Electrical Trades Union and other employee organizations parties to the Metal Trades Award, 1952, filed applications during 1953 for increased margins for all workers covered by this award.

* *Commonwealth Arbitration Reports*, Vol. 80, p. 24.

The applications came on for hearing before J. M. Galvin C.C., who decided that they raised matters of such importance that, in the public interest, they should be dealt with by the Commonwealth Court of Conciliation and Arbitration. On 16th September and 6th October, 1953, the Conciliation Commissioner, pursuant to section 14A of the Conciliation and Arbitration Act, referred these applications to the Court.

The actual claims of the trade unions were that the marginal rate of 52s. a week payable to a fitter in the metal trades should be increased to 80s. a week (86s. for certain electrical trades), with proportionate increases for other award occupations. The margins then current, with a few exceptions, had been in existence since 1947. The employees' claims were in the nature of a test case to determine the attitude of the Court to applications for increased margins.

The Metal Trades Employers' Association and other respondents to the Metal Trades Award had counter-claimed that existing margins for skilled tradesmen should remain unaltered, while those paid to partly skilled or unskilled workers should be reduced.

The Court decided to take the Commissioner's two references together, and the matter came on for hearing before the Full Arbitration Court (Kelly C.J., Kirby, Dunphy and Morgan J.J.) in Melbourne on 13th October, 1953.

In a judgment delivered on 25th February, 1954, the Court held that a *prima facie* case had been made for a re-assessment of margins but that the economic situation at that time, particularly in regard to the level of costs, did not permit of such a comprehensive review. The Court decided that, to avoid the creation of new disputes, to save expense and to obviate procedural difficulties, it would not reject the claims but adjourn them until 9th November, 1954.

On 25th and 26th August, 1954, summonses were filed by the employees' organizations for orders that proceedings in this case be brought forward and the hearing was resumed on 5th October, 1954.

In a judgment delivered on 5th November, 1954*, the Court made an order re-assessing the marginal structure in the Metal Trades Award by, in general, raising the current amount of the margin to two and a half times the amount of the margin that had been current in 1937. However, in cases in which the result of that calculation produced an amount less than the existing margin the existing margin was to remain unaltered. In effect, this decision increased the margins of a fitter from 52s. a week to 75s. a week, increased similarly margins of other skilled occupations, and made no increase in margins of what may generally be described as the unskilled or only slightly skilled occupations under the Metal Trades Award.

At the end of its judgment, the Court stated that, while its decision in this case related immediately to one particular industry, it was expected to afford general guidance to all authorities operating under the Conciliation and Arbitration Act, or under other legislation which provided for tribunals having power to make references, or being subject to appeal, to the Court, where the wage or salary may properly be regarded as containing a margin. The Court added observations for the guidance of these and of other tribunals "which may regard decisions of this Court as of persuasive authority". Further details were published in *Labour Report* No. 46, 1958, pages 101-8.

3. *Margins Cases, 1959.*—On 25th August, 1959, the Commonwealth Conciliation and Arbitration Commission began considering a number of applications for increases in marginal rates. The Amalgamated Engineering Union and other employee organizations applied for increases in margins in Part I. of the Metal Trades Award. There were also applications by the Association of Architects, Engineers, Surveyors and Draughtsmen of Australia and the Federation of Scientific and Technical Workers for variation of the Metal Trades Award, Part II. and of the Aircraft Industry Award, Part II., by the Australian Bank Officials' Association regarding the Bank Officials' Award and by the Australian Workers Union regarding the Gold and Metalliferous Mining Award. Finally there was an application by the Metal Trades Employers' Association and others to reduce rates in the Metal Trades Award. All of these matters were references under Section 34 of the Conciliation and Arbitration Act from the appropriate Commissioner.

During a debate as to whether these matters should be heard together, it became apparent that the applicants in respect of Part II. of the Metal Trades and Aircraft Industry Awards and the Bank Officials' Award desired to ask only for an interim increase in margins

* *Commonwealth Arbitration Reports*, Vol. 80, p. 3.

at that stage. The employers submitted that the applicants should be required to submit their whole case. The Commission decided to hear all the matters together, permitting the applicants in these three cases to ask first for an interim decision, it being understood that those applicants would have to satisfy the Commission that a case had been made out for an interim increase.

On 27th November, 1959, judgments were delivered in connexion with two of the five cases before the Commission, namely, those concerning margins in the Metal Trades Award Part I. and the Gold and Metalliferous Mining Award.* This was done to avoid delay and to give parties to the other three cases the opportunity of making further submissions in the light of the decisions (and reasons for the decisions) in these two cases.

A summary of the Metal Trades Case, Part I., is given in the following paragraphs.

The employee organizations claimed an increase in the margin for the fitter, as set out in the Metal Trades Award, 1952 (i.e., the award as it existed prior to the Metal Trades Case, 1954—see para. 2, page 454), from 52s. to 134s. a week and an increase of 157 per cent. in the margins for other classifications. The employers counter-claimed for a reduction in margins of 15s. a week.

Counsel for the unions put broadly a case that in the proper fixation of margins the basic criteria were the market value at the time of the fixation of the wage and the economic capacity of the economy to pay the wages claimed, and he alleged that the 1954 Metal Trades decision had departed from these principles. He produced to the Commission material to demonstrate the economic situation which would justify the increases asked for. He also submitted that the true relativities in the Metal Trades Award should be those created by a combination of the 1947 Full Court decision and the second variation order made in 1947 by G. A. Mooney, C.C.†

The employers adopted the view that no case had been made out for any increase and that there should be wage reductions. They also supplied the Commission with economic material in support of their case that there was no capacity in the community to sustain increased margins, and alternatively that any increased economic capacity which may have occurred since 1954 had been exhausted by basic wage fixations.

As to relativities, the employers submitted that the 1954 decision should be adhered to and should be carried to its logical conclusion in so far as the lower paid classifications were concerned.

The Attorney-General of the Commonwealth intervened, and not only submitted statistical material and an analysis of the economic situation, but also assisted the Commission with an exposition of various factors proper to be taken into account in the fixation of margins. In particular, counsel for the Attorney-General emphasized the desirability of flexibility in the workings of the arbitration system.

In the judgment, delivered on 27th November, 1959, the Commission rejected the employers' application to reduce wages under the Metal Trades Award, and made an order re-assessing the marginal structure in the award by increasing the existing margins by 28 per cent., the amount of the increase being taken to the nearest 6d. The new margins applied from the beginning of the first full pay-period commencing in December, 1959. The effect of this decision was to increase the margin of the fitter from 75s. to 96s. a week.

The Commission stated that, not having before it the question of work values, and having decided not to alter the 1954 relativities, the increases had been expressed as a percentage of current margins, but this was not to be taken as an endorsement of that method of fixing margins.

In view of the widespread effects of this judgment, some extensive extracts from it are given below:—

Functions of the Commission.—"We find it necessary to make a few general remarks about the functions of the Commission in view of some of the submissions which have been made to us . . . The true function of the Commission is to settle industrial disputes. In the settlement of disputes involving payment of wages, such as this one in which such issues have been raised, the Commission will bear in mind the various economic submissions made to it, including those about price rises and inflation; it will also bear in mind the fiscal and economic policies of the Government. It will not ignore the consequences to be expected

* Print No. A7072, p. 4.

† *Commonwealth Arbitration Reports*, Vol. 59, p. 1272.

from its actions but it will not deliberately create situations which would need rectification by Governmental action. It will not use its powers for the purposes of causing any particular economic result apart from altered wages although in the event the decision it makes may have other economic consequences".*

Principles of Marginal Fixation.—"In the discharge of our function of settling the particular disputes before us and as this is the first occasion on which this Commission constituted as a full bench has been called upon to deal with a major case concerning general marginal principles we propose to deal with some of the submissions which have been put to us as to general principles. We would, however, emphasize that we do not regard what we have to say as exhausting the subject of marginal fixations."†

"In our view there is no real reason why a margin should be expressed as a percentage of the basic wage, and it would be unwise to express any margin in that way.

"A closely related question is whether margins should be increased merely because of the decreased purchasing power of money since last fixed. We were referred to the 1954 Margins Judgment and other judgments on that point (see 80 C.A.R. 1 at pp. 30 and 31 and the judgments there cited). If those judgments do no more than reject the automatic or mathematical approach, that is, reject the proposition that a margin should be fixed merely by multiplying an existing margin by whatever is necessary to make up the decrease in purchasing power of money, we agree with them. If those judgments suggest that the decrease in purchasing power is not a factor to be taken into account at all, we find ourselves unable to agree with them. Whenever a margin is fixed, it is fixed in current money terms and if no account at all is taken of the decreased purchasing power of money since the margin was last assessed, then the fixation would not be a real one. Whenever a margin is under review, some account must be taken of the amount at which the margin was originally fixed and of the decrease in purchasing power of money since then, if in fact it has decreased. Although this concept is capable of being expressed shortly, its application in practice is complicated by the lack of any adequate measure of the decreased purchasing power of money. In arriving at the rates we award we have taken into account the fact that there has been a significant fall in real value of the current margins since they were fixed.

"The proceedings before us were largely taken up with submissions regarding economic capacity and a question arose whether in these proceedings we should look at the capacity of the economy generally, the capacity of the particular industry or industries covered by the awards in question, or both. Historically it would appear that prior to 1947 it had been the practice, in the Metal Trades industry at least, to look at the economic situation of the industry itself."‡

"This seemed to be the approach until 1947 when the Court looked at both the economic capacity of industry generally and the capacity of the particular industry (58 C.A.R. 1088 at p. 1090). It was not until 1954 that the Court considered only the capacity of industry generally and did not concern itself with the capacity of the Metal Trades industry as such. It must be borne in mind that in the 1954 Metal Trades case the Court proceeded to lay down a formula intended, speaking generally, for all industry. In such a context, consideration of the economic position of a particular industry would not be relevant. We do not think it could be said that the economic capacity of a particular industry could not be relevant in a particular case . . . Economic capacity, either generally or in a particular industry, may not be an issue at all in the fixation of margins. In many cases in the past margins have been fixed without consideration of capacity and we see no reason why in appropriate circumstances that practice should not continue."§

"Although this may not be a principle of marginal fixation, we find it convenient here to deal with the submission made by the employers, that . . . even if there had been capacity to pay increased wages, that capacity had been exhausted by basic wage decisions in recent years. In making this submission they relied both on economic material and on statements in the judgments, particularly in the 1958 Basic Wage Judgment.

"We would think it clear that neither the Court nor the Commission has ever talked in terms of "exhausting" the capacity of the economy as far as wages generally are concerned when fixing a basic wage. The reference on p. 8 of the 1958 Basic Wage Judgment to marginal claims refutes any suggestion that in that case the Commission believed it was exhausting the capacity of the economy with its basic wage decision."§

Relativities.—"The Unions sought in these proceedings to have restored the relativities within the marginal structure of the Metal Trades Award which existed prior to the 1954 decision, that is, a combination of the Full Court's 1947 decision and the second Mooney formula."§

* Print No. A7072, p. 9.

† Ibid., p. 10.

‡ Ibid., p. 11.

§ Ibid., p. 12.

"The employers not only relied on the relativities created in 1937 and confirmed in 1954, except as to the lower paid classifications, but also asked us to take the 1954 relativities to their logical conclusion in our decision in this matter as far as those classifications are concerned.

"The difference between margins in an award occurs because the award maker has decided that there is a difference in the amounts to be awarded for skill, arduousness and other like factors proper to be taken into account in fixing a secondary wage. In origin, at least, relativities in margins are merely an expression of relative work values and there is before us no evidence of such present values.

"We are therefore in this position. We have the 1954 award, which for the past five years has regulated the relativities of margins in this industry. In these proceedings, the real criterion for relativities, namely, work value, does not fall for decision. We have been asked on the one hand to go behind the 1954 decision and to restore the relativities which that decision changed and on the other hand to extend the reasoning of the 1954 Judgment to margins which the Court was not then prepared to reduce.

"In all the circumstances we are not prepared to accede either to the Unions' submissions or to the employers' submission in this regard, and we have accepted the relativities established by the 1954 decision except to the extent necessary to round some of the figures off.

"The question of relativities in margins in the Metal Trades Award, based on work value, is thus still open."*

Over-Award Payments.—"The question of over-award payments is a complex one. The material before us is fragmentary and incomplete and it contains difficulties because many of the descriptions used were not defined in advance and may mean different things in different places. From the very nature of things it may not be possible to obtain precise and complete information from Union sources. Nevertheless, we feel that the material put before us by the Unions on this occasion, unanswered by evidence from the employers, is helpful to the extent indicated hereafter. The question of what is in fact being paid in an industry has been regarded as a relevant consideration in wage fixation by the Commonwealth Court of Conciliation and Arbitration. It has been regarded as relevant even when the amounts paid were obtained under pressure. See Metal Trades case (37 C.A.R. 176 at p. 182) and Bank Officials' case (34 C.A.R. 843 at p. 849)."[†]

"We have given earnest consideration to the question whether this Commission should pay regard to payments which have been obtained by duress. From the economic point of view it seems hardly open to question that the means by which over-award payments of sufficient duration were obtained is irrelevant when one is concerned with discovering economic capacity. The mere fact that such amounts are being paid and have been paid over an appreciable period is sufficient to demonstrate capacity. We would point out, however, that the over-award payments with which we are dealing, are, in the main, over-award payments which have been built up over the past five years since the 1954 Metal Trades Award was made. If, in that time, the Unions concerned in the applications before us had applied their energies to seeking relief in this tribunal instead of seeking to obtain relief by direct action it may well be that instead of an incomplete and fragmentary picture of over-award payments, identifiable and general increased payments might have been obtained through the processes of arbitration.

"We have been unable on the material before us to arrive at any figure which could be said to be a reliable average over-award payment for any classification. The most we are able to say in the context of our general industrial knowledge is that in the Metal Trades industry there are over-award payments of varying amounts in quite a number of establishments. We have taken this factor, indefinite though it is, into account in arriving at our decision."[†]

Economic Considerations.—Counsel for the unions took as the starting point for his economic submissions the year in which, he said, rates had last been properly fixed in the award, namely, 1947. He submitted that there had been a remarkable improvement in the economy since that date, and that over the period since then the economy had shown itself able to sustain the increases in margins claimed.

The employers took as their starting point 1954, the year in which margins were last fixed in this industry, and submitted that capacity had not improved since that time.

In reviewing the economic situation, the Commission considered the current position in the light of information which had become available since the 1959 Basic Wage Judgment.

* Print No. A7072, p. 13.

† Ibid., p. 14.

After considering various indicators of the state of the economy, the Commission discussed the problems of inflation and the maintenance of economic stability. The Commission stated its views as follows:—

"We are conscious of the desirability of attempting to maintain the economic stability which this country has achieved. We are also conscious of the desirability of ensuring that wage justice should be done to employees under this Award. We have looked at the increases which we propose to grant in this case in the light of the submissions about economic stability and we do not consider that such increases are so likely to affect that stability that the economy will be adversely affected. If marginal increases cannot be granted in times of economic prosperity such as the present, it is difficult to imagine when they can be granted."*

"We have considered, with the qualifications already mentioned in this Judgment, the decrease in the purchasing power of money which has occurred since the 1954 marginal fixation, we have assessed as well as we are able to the increased capacity which has occurred in the Australian economy since that time and the fact that productivity has played its part in that increase of strength, and we have considered the Basic Wage decisions and appraisals of the economy by the Court and the Commission since 1954. In the result we have thought it proper to increase margins in the Metal Trades industry in the particular circumstances which confront us by an amount which exceeds the loss in purchasing power of the 1954 margins which excess we consider has been earned by the contribution of the employees to productivity increases and made possible by the additional strength of the national economy."*

Conclusion.—"In view of all the foregoing we have come to the conclusion that the employers' application to reduce wages under this award should be rejected and that increases in margins may properly be granted. We have tested the amount of increase to be awarded by taking certain representative classifications for which we award the following increases:—

—						Present Margin.	Increase.	New Margin.
						s.	s. d.	s. d.
Duster	..	..	..	..	..	125	35 0	160 0
Forger	..	..	..	..	..	105	29 6	134 6
Fitter	..	..	..	..	..	75	21 0	96 0
Machinist—2nd class	..	..	..	..	..	50	14 0	64 0
Process worker	.	..	..	..	..	22	6 0	28 0

"It will be seen that these new margins represent an increase of 28 per cent. and we award for all other classifications adjustments of 28 per cent. on current margins, the amount of the increase to be taken to the nearest 6d."†

"The order giving effect to this decision will be settled by the Registrar with recourse if necessary to a member of this bench and will be expressed as a variation of the existing Award the period of operation being until 30th November, 1961."‡

Judgment was also delivered on 27th November, 1959, in connexion with the application for variation of margins in the Gold and Metalliferous Mining Award.§ The margin for the miner was increased from 32s. to 42s. 6d. a week from the beginning of the first full pay-period commencing in December, 1959. Marginal claims for other classifications were referred back to the appropriate Commissioner for consideration.

The Commission delivered a judgment on the application for interim increases with regard to the Metal Trades Award, Part II., the Aircraft Industry Award, Part II. and the Bank Officials' Award on 11th December, 1959. After considering the principles to be applied in determining whether interim increases should be made and, if so, how they should be assessed, the Commission concluded that interim increases should be granted, as follows:—

Metal Trades Award, Part II. and Aircraft Industry Award, Part II.—A 20 per cent. increase in margins to graduates and diplomats, payable as from the beginning of the first full pay-period commencing in December, 1959.

Bank Officials' Award.—A 20 per cent. increase in margins to officers in the 10th to 18th year of service inclusive and to accountants and managers, payable retrospectively as from 11th June, 1959. Increases were not awarded to more junior officers, nor to females.

* Print No. A7072, p. 20.

† Ibid., p. 21.

‡ Ibid., p. 22.

E. EMPLOYMENT AND UNEMPLOYMENT.

§ 1. Employment.

1. **Total Occupied Persons.**—(i) *General.* The total number of occupied persons in Australia is obtained from the results of each population Census, supplemented by data in respect of Australian defence personnel serving outside Australia, who, in accordance with usual Census procedure, are not recorded in the Census. The figures shown below in sub-para. (ii) and (iii) are derived from the 1933, 1947 and 1954 Censuses, after making certain adjustments of which the more important are referred to in the notes to the tables or in the accompanying text (sub-para. (ii)). For this reason, and because of the distribution of "not stated" (see p. 315), these figures differ from the Census figures shown in Chapter IX.—Population.

(ii) *Australia.* The figures in the table below are divided into three categories:—(a) defence forces; (b) all persons fully occupied as employers, or as self-employed in businesses or on farms; and (c) wage and salary earners employed, or occupied as casual, part-time, intermittent or seasonal workers. "Unemployed" persons (see explanation on page 465) are excluded.

All unpaid "helpers" in non-rural industry have been included with wage and salary earners. Male unpaid "helpers" in rural industry have been included with employers and self-employed persons, as it is considered that the majority of these are sons or other close relatives of farmers working in *de facto* partnership, or as learners with the farm owner. Unpaid female "helpers" on farms are fairly numerous. Generally they are occupied mainly in home duties, and, with all other women occupied in unpaid home duties, have been excluded from the category of occupied persons.

TOTAL OCCUPIED PERSONS: AUSTRALIA, JUNE, 1933, 1947 AND 1954.
(^{'000.})

June.	Defence Forces. (a)	Employers and Self-employed.			Wage and Salary Earners.			Total Occupied Civilians.	Total Occupied Persons, including Defence Forces. (a)
		Rural Industry.	Other Industries.	Total.	Rural Industry.	Other Industries.	Total.		
MALES.									
1933	5.8	293.5	249.0	542.5	200.1	989.8	1,189.9	1,732.4	1,738.2
1947	53.2	278.9	286.8	565.7	148.2	1,659.4	1,807.6	2,373.3	2,426.5
1954	(b) 50.9	279.2	316.9	596.1	154.2	2,020.3	2,174.5	2,770.6	2,821.5
FEMALES.									
1933	..	15.2	56.3	71.5	3.2	(c) 446.6	449.8	521.3	521.3
1947	0.8	13.8	55.8	69.6	8.1	(d) 659.9	668.0	737.6	738.4
1954	2.0	19.6	62.1	81.7	7.6	735.4	743.0	824.7	826.7
PERSONS.									
1933	5.8	308.7	305.3	614.0	203.3	1,436.4	1,639.7	2,253.7	2,259.5
1947	54.0	292.7	342.6	635.3	156.3	2,319.3	2,475.6	3,110.9	3,164.9
1954	52.9	298.8	379.0	677.8	161.8	2,755.7	2,917.5	3,595.3	3,648.2

(a) Includes those serving outside Australia. (b) Excludes approximately 10,300 males undergoing full-time National Service Training at the time of the Census. With the exception of full-time students these persons have been included in the figures of occupied civilians. (c) Includes females in private domestic service:—106,700 in 1933, 40,200 in 1947 and 29,600 in 1954. (d) Includes an estimate of 40,400 part-time workers not classified as wage earners at the Census.

The numbers of defence personnel serving outside Australia who were included in the defence forces shown in the table above were as follows:—1947, 13,843 males, 143 females; 1954, 5,841 males, 62 females.

(iii) *States.* The following table shows the total numbers of occupied males and females in each State and Territory in June of 1947 and 1954, classified as defence forces, employers and self-employed persons, and wage and salary earners.

**TOTAL OCCUPIED PERSONS: STATES AND TERRITORIES,
JUNE, 1947 AND 1954.**
(^{000.})

State or Territory.	Defence Forces. (a)		Employers and Self-employed.		Wage and Salary Earners.		Total Occupied Persons, including Defence Forces.(a)	
	June, 1947.	June, 1954.	June, 1947.	June 1954.	June, 1947.	June, 1954.	June, 1947.	June, 1954.

MALES.

		(b)						
New South Wales ..	23.1	21.4	197.5	207.3	728.1	833.7	948.7	1,062.4
Victoria ..	15.9	15.0	158.1	167.1	490.5	596.9	664.5	779.0
Queensland ..	5.9	6.6	96.9	99.7	252.0	307.4	354.8	413.7
South Australia ..	2.6	2.3	51.8	55.5	153.3	194.1	207.7	251.9
Western Australia ..	3.4	3.1	39.8	44.3	116.6	156.1	159.8	203.5
Tasmania ..	0.8	0.8	20.1	20.2	57.8	71.9	78.7	92.9
Northern Territory ..	0.8	0.7	1.0	1.1	4.0	5.8	5.8	7.6
Australian Capital Territory ..	0.7	1.0	0.5	0.9	5.3	8.6	6.5	10.5
<i>Australia</i> ..	<i>53.2</i>	<i>50.9</i>	<i>565.7</i>	<i>596.1</i>	<i>1,807.6</i>	<i>2,174.5</i>	<i>2,426.5</i>	<i>2,821.5</i>

FEMALES.

New South Wales ..	0.3	0.5	25.4	29.0	268.6	290.6	294.3	320.1
Victoria ..	0.4	0.8	22.5	25.3	202.0	227.0	224.9	253.1
Queensland ..	0.1	0.2	10.2	12.5	83.9	93.1	94.2	105.8
South Australia ..	..	0.1	5.2	7.0	52.9	59.9	58.1	67.0
Western Australia ..	..	0.1	4.3	5.6	39.2	46.6	43.5	52.3
Tasmania ..	..	0.1	1.8	2.1	18.9	21.7	20.7	23.9
Northern Territory ..	..	0.1	0.1	0.1	0.7	1.3	0.8	1.5
Australian Capital Territory ..	..	0.1	0.1	0.1	1.8	2.8	1.9	3.0
<i>Australia</i> ..	<i>0.8</i>	<i>2.0</i>	<i>69.6</i>	<i>81.7</i>	<i>668.0</i>	<i>743.0</i>	<i>738.4</i>	<i>826.7</i>

PERSONS.

		(b)						
New South Wales ..	23.4	21.9	222.9	236.3	996.7	1,124.3	1,243.0	1,382.5
Victoria ..	16.3	15.8	180.6	192.4	692.5	823.9	889.4	1,032.1
Queensland ..	6.0	6.8	107.1	112.2	335.9	400.5	449.0	519.5
South Australia ..	2.6	2.4	57.0	62.5	206.2	254.0	265.8	318.9
Western Australia ..	3.4	3.2	44.1	49.9	155.8	202.7	203.3	255.8
Tasmania ..	0.8	0.9	21.9	22.3	76.7	93.6	99.4	116.8
Northern Territory ..	0.8	0.8	1.1	1.2	4.7	7.1	6.6	9.1
Australian Capital Territory ..	0.7	1.1	0.6	1.0	7.1	11.4	8.4	13.5
<i>Australia</i> ..	<i>54.0</i>	<i>52.9</i>	<i>635.3</i>	<i>677.8</i>	<i>2,475.6</i>	<i>2,917.5</i>	<i>3,164.9</i>	<i>3,648.2</i>

(a) Includes those serving outside Australia. (b) Excludes approximately 10,300 males undergoing full-time National Service Training at the time of the Census. See also footnotes to previous table.

2. **Wage and Salary Earners in Civilian Employment.**—(i) *General.* Monthly estimates of the number of wage and salary earners in civilian employment (excluding employees in rural industry and female private domestics) are obtained from three main sources, namely, (a) monthly data as to persons employed in factories as shown at annual Factory Censuses; (b) current monthly returns from Government Bodies; and (c) current monthly Pay-roll Tax returns. There are also some other direct records of monthly employment (e.g., for hospitals).

These are supplemented by estimates of the number of employees outside the ambit of the Factory Census, returns from Government Bodies, and Pay-roll Tax returns. Monthly numbers of factory employees subsequent to June, 1960, are estimated and are subject to revision when the Factory Censuses for 1960-61 and ensuing years are tabulated.

The estimates of wage and salary earners in this section are compiled on an establishment or enterprise basis, and therefore do not cover exactly the same area of industry as do the relevant industry tabulations of the General Censuses of 1947 and 1954, which are based on the returns of individual employees.

The purpose of these estimates of employment is to measure, as nearly as may be with available data, current monthly *trends* in employment in the defined field. Industry groups herein are not identical in coverage with Census groups.

Pay-roll Tax returns are lodged by all employers paying more than £200 a week in wages, other than certain Commonwealth Government authorities, religious and benevolent institutions, public hospitals and other similar organizations specifically exempted under the Pay-roll Tax Assessment Act 1941-1957.

(ii) *Australia: Industrial Groups.* The following table shows total male and female wage and salary earners in civilian employment (excluding employees in rural industry, female private domestics, permanent defence forces and National Service trainees in camp) subdivided to show the extent of employment provided by Government bodies and by private employers respectively. Principal industrial groups shown in the table include both private employees and Government employees, if any. (Current figures are published in the *Monthly Bulletin of Employment Statistics* and the *Monthly Review of Business Statistics*). The manufacturing employment figures published in this table comprise (a) the series showing actual monthly employment in factories as recorded at successive annual Censuses of Factories to June, 1960 (see Chapter VI.), with interim estimates for subsequent months, and (b) estimates of the number of employees in industrial establishments outside the scope of the definition of a factory and persons employed by factory proprietors but engaged in selling and distribution, etc.

WAGE AND SALARY EARNERS IN CIVILIAN EMPLOYMENT: INDUSTRIAL GROUPS, AUSTRALIA.

(EXCLUDING RURAL WAGE EARNERS, FEMALE PRIVATE DOMESTICS, PERSONNEL IN DEFENCE FORCES AND NATIONAL SERVICE TRAINEES IN CAMP.)

('000.)

Industrial Group.	June, 1955.	June, 1956.	June, 1957.	June, 1958.	June, 1959.	June, 1960.	Dec., 1960.
MALES.							
Mining and Quarrying ..	58.3	57.3	56.3	51.6	49.1	49.3	49.1
Manufacturing, etc.(a) ..	826.2	842.4	845.1	857.2	873.6	910.2	914.2
Building and Construction ..	211.8	214.6	207.4	202.4	205.2	206.6	206.4
Transport(b) ..	244.7	245.9	245.1	242.1	241.7	240.5	240.7
Communication ..	64.0	64.5	67.9	69.7	70.9	71.5	71.1
Property and Finance ..	59.6	61.7	64.0	66.0	68.8	73.1	74.1
Retail Trade ..	129.3	130.0	129.6	132.7	133.6	137.3	143.7
Wholesale and Other Commerce ..	147.5	151.0	150.0	150.3	152.7	158.0	163.5
Public Authority Activity, n.e.i. ..	99.2	100.6	101.7	104.0	105.4	105.7	106.2
Health ..	26.0	26.8	27.1	27.5	28.3	29.0	29.5
Education ..	38.8	40.9	43.5	45.4	49.1	52.7	53.3
Personal Service ..	54.3	54.4	54.7	54.9	54.3	54.9	57.1
Other(c) ..	90.0	92.1	93.0	94.1	94.9	98.9	99.8
<i>Total</i> ..	<i>2,049.7</i>	<i>2,082.2</i>	<i>2,085.4</i>	<i>2,097.9</i>	<i>2,127.6</i>	<i>2,187.7</i>	<i>2,208.7</i>
Government(d) ..	599.1	604.9	609.5	621.8	633.9	633.3	631.7
Private ..	1,450.6	1,477.3	1,475.9	1,476.1	1,493.7	1,554.4	1,577.0
<i>Total</i> ..	<i>2,049.7</i>	<i>2,082.2</i>	<i>2,085.4</i>	<i>2,097.9</i>	<i>2,127.6</i>	<i>2,187.7</i>	<i>2,208.7</i>

NOTE.—For footnotes see next page.

WAGE AND SALARY EARNERS IN CIVILIAN EMPLOYMENT: INDUSTRIAL GROUPS, AUSTRALIA—*continued*.

('000.)

Industrial Group.	June, 1955.	June, 1956.	June, 1957.	June, 1958.	June, 1959.	June, 1960.	Dec., 1960.
FEMALES.							
Mining and Quarrying ..	1.1	1.2	1.2	1.1	1.1	1.1	1.2
Manufacturing, etc.(a) ..	245.7	250.0	250.4	251.7	256.8	278.5	281.0
Building and Construction ..	4.9	5.1	5.3	5.5	5.6	6.0	6.2
Transport(b) ..	19.7	20.7	20.4	20.3	20.6	21.4	22.1
Communication ..	18.7	19.4	19.7	19.6	19.7	19.5	19.5
Property and Finance ..	38.1	41.8	43.5	45.4	48.0	52.1	52.6
Retail Trade ..	121.7	123.0	121.6	125.6	126.5	133.1	145.3
Wholesale and Other Commerce ..	45.0	46.3	46.8	46.9	47.3	49.4	50.6
Public Authority Activity, n.e.i. ..	28.6	29.1	29.2	29.8	30.7	31.4	32.0
Health ..	73.5	77.6	79.4	82.1	87.6	91.5	91.7
Education ..	48.0	50.6	53.9	56.3	60.8	64.9	64.0
Personal Service ..	69.6	70.2	69.5	68.7	68.3	69.1	70.5
Other(c) ..	37.3	38.4	39.3	39.5	40.0	41.6	42.1
<i>Total</i> ..	<i>751.9</i>	<i>773.4</i>	<i>780.2</i>	<i>792.5</i>	<i>813.0</i>	<i>859.6</i>	<i>878.8</i>
Government(d) ..	122.8	129.8	132.8	136.6	143.9	150.2	150.4
Private ..	629.1	643.6	647.4	655.9	669.1	709.4	728.4
<i>Total</i> ..	<i>751.9</i>	<i>773.4</i>	<i>780.2</i>	<i>792.5</i>	<i>813.0</i>	<i>859.6</i>	<i>878.8</i>

PERSONS.

Mining and Quarrying ..	59.4	58.5	57.5	52.7	50.2	50.4	50.3
Manufacturing, etc. (a) ..	1,071.9	1,092.4	1,095.5	1,108.9	1,130.4	1,188.7	1,195.2
Building and Construction ..	216.7	219.7	212.7	207.9	210.8	212.6	212.6
Transport(b) ..	264.4	266.6	265.5	262.4	262.3	261.9	262.8
Communication ..	82.7	83.9	87.6	89.3	90.6	91.0	90.6
Property and Finance ..	97.7	103.5	107.5	111.4	116.8	125.2	126.7
Retail Trade ..	251.0	253.0	251.2	258.3	260.1	270.4	289.0
Wholesale and Other Commerce ..	192.5	197.3	196.8	197.2	200.0	207.4	214.1
Public Authority Activity, n.e.i. ..	127.8	129.7	130.9	133.8	136.1	137.1	138.2
Health ..	99.5	104.4	106.5	109.6	115.9	120.5	121.2
Education ..	86.8	91.5	97.4	101.7	109.9	117.6	117.3
Personal Service ..	123.9	124.6	124.2	123.6	122.6	124.0	127.6
Other(c) ..	127.3	130.5	132.3	133.6	134.9	140.5	141.9
<i>Total</i> ..	<i>2,801.6</i>	<i>2,855.6</i>	<i>2,865.6</i>	<i>2,890.4</i>	<i>2,940.6</i>	<i>3,047.3</i>	<i>3,087.5</i>
Government(d) ..	721.9	734.7	742.3	758.4	777.8	783.5	782.1
Private ..	2,079.7	2,120.9	2,123.3	2,132.0	2,162.8	2,263.8	2,305.4
<i>Total</i> ..	<i>2,801.6</i>	<i>2,855.6</i>	<i>2,865.6</i>	<i>2,890.4</i>	<i>2,940.6</i>	<i>3,047.3</i>	<i>3,087.5</i>

(a) Includes employees engaged in selling and distribution, etc., who are outside the scope of the factory employment figures as defined and published in Chapter VI. (b) Includes road transport; shipping and stevedoring; rail and air transport. (c) Includes forestry, fishing and trapping; law and order; religion and social welfare; other professional; amusement, sport and recreation. (d) Includes employees of Commonwealth, State, Local and Semi-Government authorities. See para. 3 (i) below.

A graph showing wage and salary earners in civilian employment in the main industrial groups appears on page 413.

(iii) *States.* Statistics of total employment of wage and salary earners (excluding rural wage earners, female private domestics and defence forces) since 1955 are shown for each State and Territory in the following table.

WAGE AND SALARY EARNERS IN CIVILIAN EMPLOYMENT.

(EXCLUDING RURAL WAGE EARNERS, FEMALE PRIVATE DOMESTICS, PERSONNEL IN DEFENCE FORCES AND NATIONAL SERVICE TRAINEES IN CAMP.)

('000.)

Year and Month.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
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MALES.

1955—June ..	794.1	576.2	278.2	180.8	141.5	65.1	4.8	9.0	2,049.7
1956—June ..	808.3	583.2	282.4	187.9	140.5	65.7	5.2	9.0	2,082.2
1957—June ..	810.2	586.0	282.6	186.4	138.4	66.0	5.8	10.0	2,085.4
1958—June ..	813.9	592.9	282.8	186.0	138.6	67.0	5.6	11.1	2,097.9
1959—June ..	819.0	603.4	287.8	192.0	140.0	67.6	5.9	11.9	2,127.6
1960—June ..	846.8	623.4	290.4	196.6	141.7	69.4	6.3	13.1	2,187.7
1960—December	862.0	633.9	282.7	197.2	143.5	69.8	6.2	13.4	2,208.7

FEMALES.

1955—June ..	297.4	232.4	92.1	59.8	44.3	21.8	1.0	3.1	751.9
1956—June ..	305.9	238.5	93.7	62.5	45.1	23.2	1.2	3.3	773.4
1957—June ..	309.3	240.4	95.8	62.4	44.5	22.9	1.2	3.7	780.2
1958—June ..	314.4	244.5	95.9	63.4	45.6	23.5	1.3	3.9	792.5
1959—June ..	320.4	252.8	97.9	65.9	47.0	23.3	1.4	4.3	813.0
1960—June ..	340.1	268.1	101.8	69.8	49.2	24.2	1.6	4.8	859.6
1960—December	350.3	273.1	102.6	70.8	51.1	24.3	1.6	5.0	878.8

PERSONS.

1955—June ..	1,091.5	808.6	370.3	240.6	185.8	86.9	5.8	12.1	2,801.6
1956—June ..	1,114.2	821.7	376.1	250.4	185.6	88.9	6.4	12.3	2,855.6
1957—June ..	1,119.5	826.4	378.4	248.8	182.9	88.9	7.0	13.7	2,865.6
1958—June ..	1,128.3	837.4	378.7	249.4	184.2	90.5	6.9	15.0	2,890.4
1959—June ..	1,139.4	856.2	385.7	257.9	187.0	90.9	7.3	16.2	2,940.6
1960—June ..	1,186.9	891.5	392.2	266.4	190.9	93.6	7.9	17.9	3,047.3
1960—December	1,212.3	907.0	385.3	268.0	194.6	94.1	7.8	18.4	3,087.5

(iv) *Factories.* Actual monthly factory employment derived from the results of annual factory censuses is published in the Bulletin *Secondary Industries*, issued by this Bureau.

Additional tables regarding employment in factories may be found in Chapter VI.—Manufacturing Industry, of this Year Book.

3. *Government Employees.*—(i) *States and Territories.* The numbers of civilian employees of Commonwealth Government, State, Local and Semi-Government authorities in each State and Territory at June, 1960, are shown in the following table. These include all employees of government authorities on services such as railways, tramways, banks, post office, air transport, education, broadcasting, television, police, public works, factories and munitions establishments, migrant hostels, etc., as well as administrative employees, within Australia.

CIVILIAN EMPLOYEES OF GOVERNMENT AUTHORITIES: JUNE, 1960.

State or Territory.	Commonwealth Government.(a)			State Government.(a)			Local Government.			Total.		
	Males.	Fe-males.	Persons.	Males.	Fe-males.	Persons.	Males.	Fe-males.	Persons.	Males.	Fe-males.	Persons.
N.S.W. ..	58,408	15,914	74,322	134,934	31,063	165,997	29,496	3,285	32,781	222,838	50,262	273,100
Vic. ..	52,267	14,913	67,180	102,477	29,695	132,172	14,107	2,034	16,141	168,851	46,642	215,493
Qld. ..	18,606	5,053	23,659	56,273	9,391	65,664	19,607	1,073	20,680	94,486	15,517	110,003
S.A. ..	18,290	3,911	22,201	39,550	12,625	52,175	3,569	349	3,918	61,409	16,885	78,294
W.A. ..	9,804	2,327	12,131	38,297	8,169	46,466	3,735	384	4,119	51,836	10,880	62,716
Tas. ..	4,957	1,359	6,316	14,731	4,352	19,083	2,373	198	2,571	22,061	5,909	27,970
N.T. ..	3,187	881	4,068	..	..	..	72	9	81	3,259	890	4,149
A.C.T. ..	8,587	3,190	11,777	..	..	..	..	..	..	8,587	3,190	11,777
Australia.	174,106	47,548	221,654	386,262	95,295	481,557	72,959	7,332	80,291	633,327	150,175	783,502

(a) Includes Semi-Government authorities. See explanation above.

(ii) *Australia.* The following table shows at June in each of the years 1955 to 1960, and at December, 1960, the number of civilian employees of Commonwealth, State, Local and Semi-Government authorities.

CIVILIAN EMPLOYEES OF GOVERNMENT AUTHORITIES: AUSTRALIA.

Date.	Commonwealth Government.(a)			State Government.(a)			Local Government.			Total.		
	Males.	Fe-males.	Persons.	Males.	Fe-males.	Persons.	Males.	Fe-males.	Persons.	Males.	Fe-males.	Persons.
June—												
1955 ..	160,840	44,291	205,131	373,238	72,728	445,966	65,026	5,771	70,797	599,104	122,790	721,894
1956 ..	162,314	46,114	208,428	377,077	77,587	454,664	65,558	6,138	71,696	604,949	129,839	734,788
1957 ..	165,566	45,612	211,178	378,055	80,825	458,880	65,854	6,376	72,230	609,475	132,813	742,288
1958 ..	169,764	45,654	215,418	384,424	84,326	468,750	67,603	6,688	74,291	621,791	136,668	758,459
1959 ..	172,724	46,810	219,534	391,274	90,117	481,391	69,848	7,008	76,856	633,846	143,935	777,781
1960 ..	174,106	47,548	221,654	386,262	95,295	481,557	72,959	7,332	80,291	633,327	150,175	783,502
Dec.—												
1960 ..	173,733	47,726	221,459	384,147	94,993	479,140	73,813	7,672	81,485	631,693	150,391	782,084

(a) Includes Semi-Government authorities. See explanation above.

§ 2. Unemployment.

The total number of persons "unemployed" has been recorded only at the dates of the various Censuses. At Censuses prior to 1947, persons who were "unemployed" were requested to furnish particulars of the cause and duration of unemployment, but from 1947 onwards the enquiry was broadened to include all persons (usually engaged in industry, business, trade, profession or service) who were out of a job and "not at work" at the time of the Census for whatever reason, including any not normally associated with unemployment. Persons included covered (1) those unable to secure employment; (2) those temporarily laid off from their jobs; and (3) those not actively seeking work at the time of the Census on account of sickness or accident, industrial dispute, resting between jobs or for any other reason. This change in the form of the questionnaire probably resulted in some variation in response. The following table sets out the number of persons recorded within these categories at the Censuses of 1933 to 1954. The percentage of "unemployed" at each date to all wage and salary earners, comprising those estimated to be in employment and those unemployed, is also shown. The proportions shown, however, must be regarded as approximate, since the figures for "unemployed" do not necessarily comprise wage and salary earners only.

UNEMPLOYMENT (ALL CAUSES): AUSTRALIA, CENSUSES, 1933, 1947 AND 1954.

Date.	Wage and Salary Earners Unemployed. ('000.)			Proportion of Wage and Salary Earners Unemployed. (Per Cent.)		
	Males.	Females.	Persons.	Males.	Females.	Persons.
June, 1933(a) ..	405.4	75.8	481.2	25.4	14.5	22.7
June, 1947(b) ..	66.6	16.9	83.5	3.5	2.5	3.2
June, 1954(b) ..	41.0	14.0	55.0	1.8	1.9	1.8

(a) As recorded at the Census. In addition there were considerable numbers of youths and young women of working ages who had never been employed at the time of the Census. (b) Persons in the work force who were "not at work" (see explanation above) at the time of the Census.

The following table shows the numbers of males and females "unemployed" or "not at work" classified according to cause of unemployment at the Censuses of 1933, 1947 and 1954. The change in the form of questionnaire after 1933 should be borne in mind.

CAUSES OF UNEMPLOYMENT: AUSTRALIA, CENSUSES, 1933, 1947 AND 1954.

Year.	Unable to Secure Em- ployment.	Tempo- rarily Laid Off.	Illness.	Accident.	Industrial Dispute.	Other.	Total.
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MALES.

1933 ..	374,569	(a)	18,083	4,702	1,595	6,483	405,432
1947(b) ..	17,314	12,458	14,639	2,985	475	(c) 18,743	66,614
1954(b) ..	9,912	4,423	11,879	2,804	344	(c) 11,652	41,014

FEMALES.

1933 ..	62,630	(a)	9,193	434	95	3,465	75,817
1947(b) ..	2,254	2,449	4,396	280	24	(c) 7,512	16,915
1954(b) ..	3,685	1,386	4,310	318	17	(c) 4,284	14,000

(a) Not available. (b) See note (b) to previous table. (c) The majority of these persons were resting between jobs or changing jobs.

Details of the number of persons receiving unemployment and sickness benefits and the payments made are shown in Chapter XVIII.—Welfare Services. Current figures are included in the *Monthly Bulletin of Employment Statistics*, *Quarterly Summary of Australian Statistics*, *Monthly Review of Business Statistics* and *Digest of Current Economic Statistics*.

§ 3. Commonwealth Employment Service.

Statutory warrant for the Commonwealth Employment Service (C.E.S.) is to be found in the Re-establishment and Employment Act 1945-1959 (sections 47 and 48). In brief, the main functions of the Service are to assist people seeking employment to obtain positions best suited to their training, experience, abilities and qualifications; and to assist employers seeking labour to obtain employees best suited to the demands of the employers' particular class of work.

The organization and functions of the C.E.S. accord with the Employment Service Convention 1948 and Recommendation 1948 of the International Labour Organization, which were respectively ratified and adopted by Australia in December, 1949.

The C.E.S. functions within the Employment Division of the Department of Labour and National Service, on a decentralized basis. The Central Office is in Melbourne and there is a Regional Office in the capital city of each State, with 120 District Employment Offices in suburban and the larger provincial centres and 339 agents in the smaller country centres. The District Employment Offices are distributed as follows: New South Wales, 47; Victoria, 31; Queensland, 19; South Australia, 8; Western Australia, 9; Tasmania, 4; Northern Territory, 1; Australian Capital Territory, 1.

The C.E.S. provides specialized facilities for young people, persons with physical and mental handicaps, ex-members of the defence forces, migrants, rural workers and persons with professional and technical qualifications. Vocational guidance is provided free of charge by a staff of qualified psychologists. It is available to any person, but is provided particularly for young people, ex-servicemen and the physically handicapped. In New South Wales the State Department of Labour and Industry offers a similar service, mainly to young people leaving school.

The C.E.S. has responsibilities in the administration of the unemployment and sickness benefits provided under the Social Services Act 1947-1960. All applicants for benefits must register at a District Employment Office or agency of the C.E.S., which is responsible for certifying whether or not suitable employment can be offered to them.

The C.E.S. is responsible for placing in employment migrant workers sponsored by the Commonwealth under the Commonwealth Nomination and similar schemes. This includes arranging for them to move to their initial employment and for their admission, if necessary, to Commonwealth migrant hostels. Assistance to obtain employment is provided to other migrants as required. From the inception of the various free and assisted schemes, including the Displaced Persons Scheme, to the end of December, 1960, about 202,500 British and European migrant workers had been placed in employment by the C.E.S. Since 1951, it has been responsible for recruiting Australian experts for overseas service under the Colombo Plan and the United Nations Expanded Programme of Technical Assistance. The principal spheres in which experts have been supplied are agriculture, education, engineering, geology, health and economic and scientific research and development.

In association with placement activities, regular surveys of the labour market are carried out and detailed information is supplied to interested Commonwealth and State Government Departments and instrumentalities and to the public. Employers, employees and other interested persons are advised on labour availability and employment opportunities in various occupations and areas and on other matters concerning employment.

The Service completed its fourteenth year of operation in May, 1960. During the year ended 31st December, 1960, there were 753,027 applicants who registered for employment, of whom 572,651 were referred to employers and 383,785 placed in employment. New vacancies notified numbered 559,191 and vacancies unfilled at the end of December, 1960, 46,347.

Prior to the setting up of the Commonwealth Employment Service, State Labour Exchange Organizations existed in several States, but they have been superseded. Details of the organization and administration of these exchanges were given in *Labour Report* No. 30, page 133.

§ 4. Industrial Disputes.

1. **General.**—Detailed information regarding industrial disputes involving stoppage of work is given in the *Labour Report*.

Particulars of all disputes in progress during the year are included in the annual figures whether the dispute commenced in that year or was in progress at the beginning of the year. Consequently, details of "the number of disputes" and "workers involved" in disputes which commenced in any year and were still in progress during the following year are included in the figures for both years.

2. **Industrial Groups.**—The following table gives, for Australia as a whole, particulars of industrial disputes which were in progress during 1960, classified according to industrial groups. As from 1959, the industrial groups have been rearranged to conform, as nearly as may be, with the order adopted in other tables in this chapter. However, the figures for each industrial group shown are comparable with those published in issues of the Official Year Book prior to No. 46, 1960.

INDUSTRIAL DISPUTES(a): INDUSTRIAL GROUPS, AUSTRALIA, 1960.

Industrial Group.	Num- ber.	Workers Involved.			Working Days Lost.	Esti- mated Loss in Wages. (£).
		Directly.	In- directly. (b)	Total.		
Agriculture, Grazing, etc.	1	44	..	44	44	146
Coal Mining	329	63,195	5	63,200	107,773	453,083
Other Mining and Quarrying	13	7,858	648	8,506	51,310	320,678
Engineering, Metal Works, etc.	173	145,522	2,077	147,599	149,204	576,804
Textiles, Clothing and Footwear	4	100	..	100	61	216
Food, Drink and Tobacco	66	26,087	4,996	31,083	41,990	146,163
Sawmilling, Furniture, etc.	4	368	5	373	375	1,313
Paper, Printing, etc.	7	2,544	..	2,544	10,488	39,846
Other Manufacturing	62	9,858	3,104	12,962	30,171	115,712
Building and Construction	99	11,468	142	11,610	39,465	187,084
Railway and Tramway Services	22	114,577	161	114,738	73,662	256,390
Road and Air Transport	14	9,164	28	9,192	9,593	27,307
Shipping	23	4,628	12	4,640	10,321	38,193
Stevedoring	308	179,103	..	179,103	167,820	672,098
Amusement, Hotels, Personal Service, etc.	7	9,804	..	9,804	9,301	30,805
Other Industries (c)	13	7,733	48	7,781	23,529	60,958
Total	1,145	592,053	11,226	603,279	725,107	2,926,796

(a) Refers only to disputes involving a stoppage of work of 10 man-days or more. (b) Persons thrown out of work at the establishments where the stoppages occurred but not themselves parties to the dispute. (c) Includes Communication; Finance and Property; Wholesale and Retail Trade; Public Administration and Professional Services.

A graph showing, for the years 1951 to 1960, the working days lost as a result of industrial disputes in the main industrial groups is shown on page 414.

3. **States and Territories.**—The following table gives particulars of the number of industrial disputes in each State and Territory, together with the number of workers involved, and the losses in working days and wages caused by disputes which were current during each of the years 1957 to 1960.

INDUSTRIAL DISPUTES(a): STATES AND TERRITORIES.

State or Territory.	Year.	Number.	Workers Involved.			Working Days Lost.	Estimated Loss in Wages. (£)
			Directly.	Indirectly. (b)	Total.		
New South Wales ..	1957	761	253,041	5,950	258,991	505,910	1,860,101
	1958	624	137,922	3,906	141,828	231,537	832,644
	1959	547	123,558	2,493	126,051	211,352	819,585
	1960	736	289,266	7,646	296,912	416,762	1,731,930
Victoria ..	1957	47	8,728	453	9,181	13,444	45,576
	1958	66	45,594	1,124	46,718	99,855	340,346
	1959	60	31,134	1,107	32,241	35,890	131,440
	1960	98	86,002	2	86,004	102,805	397,117
Queensland ..	1957	221	43,123	4,611	47,734	95,300	348,422
	1958	203	60,208	2,024	62,232	87,866	343,662
	1959	175	50,883	3,996	54,879	90,777	330,653
	1960	173	155,073	3,566	158,639	153,061	594,715
South Australia ..	1957	13	6,274	7	6,281	3,703	12,571
	1958	22	8,129	62	8,191	9,338	34,540
	1959	21	5,437	..	5,437	7,487	24,950
	1960	42	25,735	12	25,747	16,568	61,820
Western Australia ..	1957	14	5,352	..	5,352	3,068	10,801
	1958	20	10,847	160	11,007	2,970	10,382
	1959	20	10,864	383	11,247	11,243	39,620
	1960	43	25,684	..	25,684	27,342	106,557
Tasmania ..	1957	36	7,236	..	7,236	5,330	18,294
	1958	24	9,268	..	9,268	4,508	15,066
	1959	34	6,348	..	6,348	6,593	24,375
	1960	40	9,142	..	9,142	6,991	27,553
Northern Territory ..	1957	9	2,183	..	2,183	2,428	9,241
	1958	27	3,535	..	3,535	3,376	12,563
	1959	9	1,007	11	1,018	966	3,537
	1960	9	942	..	942	1,226	5,308
Australian Capital Territory	1957	2	58	27	85	1,030	3,616
	1958	1	70	..	70	440	1,400
	1959	3	238	12	250	731	3,060
	1960	4	209	..	209	352	1,796
Australia ..	1957	1,103	325,995	11,048	337,043	630,213	2,308,622
	1958	987	275,573	7,276	282,849	439,890	1,590,603
	1959	869	229,469	8,062	237,471	365,039	1,377,220
	1960	1,145	592,053	11,226	603,279	725,107	2,926,796

(a) Refers only to disputes involving a stoppage of work of 10 man-days or more. (b) Persons thrown out of work at the establishments where the stoppages occurred but not themselves parties to the dispute.

4. Duration.—The following table gives particulars of industrial disputes during 1960 in the three groups "Coal Mining", "Stevedoring" and "Other Industries", classified according to duration. This dissection has been made because the pattern of the disputes in coal mining and stevedoring differs significantly from that in other industries.

DURATION OF INDUSTRIAL DISPUTES(a): AUSTRALIA, 1960.

Duration.(b)	Coal Mining.	Stevedoring.	Other Industries.	All Industries.
NUMBER OF DISPUTES.				
1 day and less	217	229	235	681
2 days and more than 1 day	57	58	86	201
3 days and more than 2 days	23	12	58	93
Over 3 days and less than 1 week	19	7	46	72
1 week and less than 2 weeks	12	2	49	63
2 weeks and less than 4 weeks .. ..	..	..	29	29
4 weeks and less than 8 weeks	1	..	4	5
8 weeks and over .. ..	..	..	1	1
Total	329	308	508	1,145

(a) Refers only to disputes involving a stoppage of work of 10 man-days or more. (b) One week equals five working days.

DURATION OF INDUSTRIAL DISPUTES(a): AUSTRALIA, 1960—*continued*.

Duration.(b)	Coal Mining.	Stevedoring.	Other Industries.	All Industries.
WORKERS INVOLVED(c).				
1 day and less	37,749	140,758	278,485	456,992
2 days and more than 1 day	9,574	30,971	42,903	83,448
3 days and more than 2 days	9,127	3,413	15,412	27,952
Over 3 days and less than 1 week	5,381	95	8,290	13,766
1 week and less than 2 weeks	1,250	3,866	8,762	13,878
2 weeks and less than 4 weeks .. .. .	..	..	6,533	6,533
4 weeks and less than 8 weeks	119	..	541	660
8 weeks and over .. .. .	..	..	50	50
Total	63,200	179,103	360,976	603,279

WORKING DAYS LOST.

1 day and less	37,549	87,705	159,039	284,293
2 days and more than 1 day	14,632	44,636	61,621	120,889
3 days and more than 2 days	24,270	8,220	36,558	69,048
Over 3 days and less than 1 week	19,116	304	30,307	49,727
1 week and less than 2 weeks	8,041	26,955	56,966	91,962
2 weeks and less than 4 weeks .. .. .	..	..	79,930	79,930
4 weeks and less than 8 weeks	4,165	..	21,816	25,981
8 weeks and over .. .. .	..	..	3,277	3,277
Total	107,773	167,820	449,514	725,107

(a) Refers only to disputes involving a stoppage of work of 10 man-days or more. (b) One week equals five working days. (c) Includes workers indirectly involved. See note (b) to table at top of p. 469.

5. Causes.—(i) *General*. In issues of the Official Year Book prior to No. 40, the causes of industrial disputes were classified in some detail for all industries combined. As from 1950, however, stoppages have been analysed in three separate groups, "Coal Mining", "Stevedoring" and "Other Industries".

Under this classification, causes are grouped under four main headings:—(1) Wages, Hours and Leave; (2) Physical Working Conditions and Managerial Policy; (3) Trade Unionism; (4) Other Causes. The first group is restricted to disputes involving general principles relating to wages, hours and leave; minor questions regarding the claims to pay or leave by individual employees are included under managerial policy. The second group comprises disputes regarding physical working conditions and general questions of managerial policy, which term covers disciplinary action, the promotion of employees, the employment of particular individuals, personal disagreements between employees and supervisory staff and disputes arising from the computation of wages, leave, etc., in individual cases. The third group includes stoppages over employment of non-unionists, inter-union and intra-union disputes, disputes over recognition of union activities, and sympathy stoppages in support of employees in another industry. The last group comprises disputes by way of protest against situations not arising from the usual relationship of employer and employee, e.g., political matters, and cases (occurring mainly in the coal mining industry) where the cause of the stoppage is not officially made known to the management.

(ii) *Industry Groups.* The following table shows particulars of industrial disputes for 1960 classified according to cause in three industry groups:—

CAUSES OF INDUSTRIAL DISPUTES(a): AUSTRALIA, 1960.

Cause of Dispute.	Coal Mining.	Stevedoring.	Other Industries.	All Industries.
NUMBER OF DISPUTES.				
Wages, Hours and Leave	22	3	188	213
Physical Working Conditions and Managerial Policy ..	178	216	254	648
Trade Unionism	47	38	42	127
Other	82	51	24	157
Total	329	308	508	1,145

WORKERS INVOLVED.(b)				
Wages, Hours and Leave	4,540	7,546	216,609	228,695
Physical Working Conditions and Managerial Policy ..	26,351	74,358	53,692	154,401
Trade Unionism	8,523	20,590	14,208	43,321
Other	23,786	76,609	76,467	176,862
Total	63,200	179,103	360,976	603,279

WORKING DAYS LOST.				
Wages, Hours and Leave	5,064	8,834	241,028	254,926
Physical Working Conditions and Managerial Policy ..	56,678	69,600	151,477	277,755
Trade Unionism	13,590	37,962	13,065	64,617
Other	32,441	51,424	43,944	127,809
Total	107,773	167,820	449,514	725,107

(a) Refers only to disputes involving a stoppage of work of 10 man-days or more. (b) Includes workers indirectly involved. See note (b) to table at top of page 469.

(iii) *Summary, 1956 to 1960.* The following table gives particulars of industrial disputes according to cause for the years 1956 to 1960.

CAUSES OF INDUSTRIAL DISPUTES(a): AUSTRALIA.

Cause of Dispute.	1956.	1957.	1958.	1959.	1960.
NUMBER OF DISPUTES.					
Wages, Hours and Leave	107	75	73	105	213
Physical Working Conditions and Managerial Policy ..	792	674	630	556	648
Trade Unionism	106	70	80	86	127
Other	301	284	204	122	157
Total	1,306	1,103	987	869	1,145

WORKERS INVOLVED.(b)					
Wages, Hours and Leave	130,526	62,708	15,861	74,327	228,695
Physical Working Conditions and Managerial Policy ..	149,208	151,863	158,729	108,839	154,401
Trade Unionism	19,816	13,612	16,432	21,564	43,321
Other	128,433	108,860	91,827	32,741	176,862
Total	427,983	337,043	282,849	237,471	603,279

WORKING DAYS LOST.					
Wages, Hours and Leave	667,964	181,839	56,214	118,010	254,926
Physical Working Conditions and Managerial Policy ..	295,633	321,422	279,253	185,282	277,755
Trade Unionism	40,844	19,460	23,139	28,826	64,617
Other	116,942	107,492	81,284	32,921	127,809
Total	1,121,383	630,213	439,890	365,039	725,107

(a) Refers only to disputes involving a stoppage of work of 10 man-days or more. (b) Includes workers indirectly involved. See note (b) to table at top of page 469.

6. **Methods of Settlement.**—The following table shows particulars of industrial disputes for 1960 classified according to method of settlement, in three industry groups:—

INDUSTRIAL DISPUTES(a): METHODS OF SETTLEMENT, AUSTRALIA, 1960.

Method of Settlement.	Coal Mining.	Stevedoring.	Other Industries.	All Industries.
NUMBER OF DISPUTES.				
By private negotiation	51	8	117	176
By mediation not based on legislation .. .. .	..	..	..	..
State legislation—				
Under State Conciliation, etc., legislation	1	..	93	94
By reference to State Government officials .. .. .	..	..	..	..
Commonwealth and Commonwealth-State legislation—				
Industrial Tribunals under—				
Conciliation and Arbitration Act .. .. .	..	..	75	75
Coal Industry Acts	27	..	..	27
Stevedoring Industry Act .. .. .	..	22	..	22
Other Acts .. .. .	..	..	2	2
By reference to Commonwealth Government officials .. .. .	..	124	..	124
By filling places of workers on strike or locked out .. .. .	..	..	..	..
By closing down establishment permanently .. .. .	..	..	..	..
By resumption without negotiation	250	154	221	625
By other methods .. .. .	..	..	..	..
Total	329	308	508	1,145

WORKERS INVOLVED.				
By private negotiation	3,929	2,024	20,359	26,312
By mediation not based on legislation .. .. .	..	..	..	..
State legislation—				
Under State Conciliation, etc., legislation	40	..	23,955	23,995
By reference to State Government officials .. .. .	..	..	..	..
Commonwealth and Commonwealth-State legislation—				
Industrial Tribunals under—				
Conciliation and Arbitration Act .. .. .	..	..	14,606	14,606
Coal Industry Acts	3,100	..	..	3,100
Stevedoring Industry Act .. .. .	..	6,398	..	6,398
Other Acts .. .. .	..	..	64	64
By reference to Commonwealth Government officials .. .. .	..	23,038	..	23,038
By filling places of workers on strike or locked out .. .. .	..	..	..	..
By closing down establishment permanently .. .. .	..	..	..	..
By resumption without negotiation	56,131	147,643	301,992	505,766
By other methods .. .. .	..	..	..	..
Total	63,200	179,103	360,976	603,279

WORKING DAYS LOST.				
By private negotiation	6,437	657	55,410	62,504
By mediation not based on legislation .. .. .	..	..	..	..
State legislation—				
Under State Conciliation, etc., legislation	80	..	115,416	115,496
By reference to State Government officials .. .. .	..	..	..	..
Commonwealth and Commonwealth-State legislation—				
Industrial Tribunals under—				
Conciliation and Arbitration Act .. .. .	..	..	57,075	57,075
Coal Industry Acts	7,870	..	..	7,870
Stevedoring Industry Act .. .. .	..	28,327	..	28,327
Other Acts .. .. .	..	..	360	360
By reference to Commonwealth Government officials .. .. .	..	30,738	..	30,738
By filling places of workers on strike or locked out .. .. .	..	..	..	..
By closing down establishment permanently .. .. .	..	..	..	..
By resumption without negotiation	93,386	108,098	221,253	422,737
By other methods .. .. .	..	..	..	..
Total	107,773	167,820	449,514	725,107

(a) Refers only to disputes involving a stoppage of work of 10 man-days or more. workers indirectly involved. See note (b) to table at top of page 469.

(b) Includes

F. WORKERS' COMPENSATION LEGISLATION.

A conspectus of the principal provisions of Workers' Compensation Acts in force in Australia at 30th June, 1959, will be found in *Labour Report* No. 47, pages 115-123.

G. LABOUR ORGANIZATIONS.

§ 1. Labour Organizations in Australia.

1. **Registration.**—(i) *Under Trade Union Acts.* In earlier issues of the Official Year Book (see No. 39, p. 448) reference was made to the registration of trade unions under the Trade Union Acts. In general, the available information is inadequate for statistical purposes.

(ii) *Under State Industrial Legislation.* Information with regard to registrations of employers' associations and trade unions under the various State Industrial Arbitration Acts will be found in earlier issues of the Official Year Book (see No. 39, p. 448).

(iii) *Under the (Commonwealth) Conciliation and Arbitration Act.* Under Part VIII. of the Conciliation and Arbitration Act 1904–1958, any association of employers in any industry who have, or any employer who has, employed, on an average taken per month, not less than 100 employees during the six months preceding application for registration, or any association of not less than 100 employees in any industry, may be registered. However, under the Public Service Arbitration Act an association of less than 100 employees may be registered as an organization, provided that its members comprise at least three-fifths of all persons engaged in that industry in the Service. Such organizations are included in the figures shown below. Registered unions include both interstate associations and associations operating within one State only. Registration under Commonwealth legislation began in 1906. At the end of 1960, the number of employers' organizations registered under the provisions of the Conciliation and Arbitration Act was 63. The number of unions of employees registered at the end of 1960 was 156, with a membership of 1,558,465, representing 81 per cent. of the total membership of all trade unions in Australia.

2. **Particulars regarding Trade Unions.**—(i) *Types.* The trade unions in Australia are very diverse in character, and range from the small independent association to the large interstate organization, which, in its turn, may be a branch of an international body. Broadly speaking, there are four distinct classes of labour organizations:—(a) the local independent; (b) the State; (c) the interstate; and (d) the Australasian or international; but a number of variations occur from each of these classes. The schemes of organization of interstate or federated unions vary greatly in character. In some unions, the State organizations are bound together under a system of unification with centralized control, while in others the State units are practically independent and self-governing, the federal bond being loose and existing only for one or two specified purposes.

(ii) *Number and Membership.* Returns showing membership by States as at 31st December each year are obtained for all trade unions and employee organizations. The affairs of single organizations are not disclosed in the published results and this has assisted in securing complete information. The Bureau is indebted to the secretaries of trade unions for their co-operation in supplying information. The following table shows the position at the end of each of the years 1958 to 1960.

TRADE UNIONS: NUMBER AND MEMBERSHIP.

State or Territory.	Number of Separate Unions.			Number of Members.			Percentage Increase in Membership.(b)		
	1958.	1959.	1960.	1958.	1959.	1960.	1958.	1959.	1960.
New South Wales ..	231	234	231	731,375	741,610	768,458	— 0.8	1.4	3.6
Victoria ..	161	159	157	444,150	461,314	479,244	0.3	3.9	3.9
Queensland ..	131	129	133	313,744	322,150	327,416	0.9	2.7	1.6
South Australia ..	136	135	136	147,029	147,093	153,468	1.5	0.0	4.3
Western Australia ..	156	154	155	114,494	114,497	115,941	0.3	0.0	1.3
Tasmania ..	98	97	101	51,508	54,136	56,006	— 0.9	5.1	3.5
Northern Territory	20	23	25	2,433	2,552	3,320	1.0	4.9	30.1
Australian Capital Territory ..	30	29	31	6,485	7,375	8,768	16.5	13.7	18.9
Australia ..	(a)370	(a)369	(a)363	1,811,218	1,850,727	1,912,621	0.1	2.2	3.3

(a) Without interstate duplication. See below. (b) On preceding year.
NOTE.—Minus sign (—) denotes decrease.

In the preceding table, under the heading "Number of Separate Unions", a union reporting members in a State is counted as one union within that State. The figures by States do not add to the Australian total (shown in the last line) because a union represented in more than one State is included in the figure for each State in which it is represented, but is counted only once in the Australian total.

(iii) *Classification in Industrial Groups.* The following table shows the number of unions and members thereof in Australia at the end of each of the years 1958 to 1960.

The industrial groups have been rearranged to conform, as nearly as may be, with the order adopted in other tables in this chapter. However, the figures for each industrial group shown are comparable with those published in previous issues.

TRADE UNIONS: INDUSTRIAL GROUPS, AUSTRALIA.

Industrial Group.	1958.		1959.		1960.	
	No. of Unions. (a)	No. of Members.	No. of Unions. (a)	No. of Members.	No. of Unions. (a)	No. of Members.
Agriculture, Grazing, etc. ..	3	61,120	3	62,681	3	63,459
Mining and Quarrying ..	12	38,332	12	40,795	12	37,724
<i>Manufacturing—</i>						
Engineering, Metal Works, etc. ..	15	275,273	15	280,848	14	292,355
Textiles, Clothing and Footwear ..	7	96,239	7	99,381	7	103,848
Food, Drink and Tobacco ..	34	110,563	34	116,727	34	119,813
Sawmilling, Furniture, etc. ..	7	42,631	7	46,544	7	43,945
Paper, Printing, etc. ..	6	45,455	6	48,226	6	51,763
Other Manufacturing ..	36	86,816	34	88,929	32	92,571
<i>Total Manufacturing</i>	<i>105</i>	<i>656,977</i>	<i>103</i>	<i>680,655</i>	<i>100</i>	<i>704,295</i>
Building and Construction ..	30	132,492	29	137,231	28	137,825
Railway and Tramway Services ..	25	137,438	25	136,444	25	139,279
Road and Air Transport ..	10	62,104	10	55,305	10	56,003
Shipping and Stevedoring ..	14	38,131	14	36,624	14	36,108
Banking, Insurance and Clerical ..	19	110,747	20	109,040	20	112,819
Wholesale and Retail Trade ..	12	74,736	12	77,839	11	81,719
Public Administration(b) ..	76	309,293	75	318,618	75	331,166
Amusement, Hotels, Personal Service, etc	23	64,171	25	64,926	25	69,571
Other Industries(c) ..	41	125,677	41	130,569	40	142,653
Total	370	1,811,218	369	1,850,727	363	1,912,621

(a) Without interstate duplication. See para. (ii) above.
Municipal, etc.

(b) Includes Communication
(c) Includes Professional Services.

(iv) *Number of Members and Proportion of Wage and Salary Earners.* The following table shows the estimated percentages of wage and salary earners in employment who are members of trade unions. As current estimates of wage and salary earners in employment do not include employees engaged in rural industry or females in private domestic service, the percentages have been calculated on figures obtained by adding to the end of year estimates the number of employees in rural industry and females in private domestic service recorded at the Census of 30th June, 1954. For this reason, and also because the membership of trade unions includes some persons not in employment, the percentages shown in the table must be regarded as approximations.

TRADE UNIONS: NUMBER OF MEMBERS AND PROPORTION OF TOTAL WAGE AND SALARY EARNERS, AUSTRALIA.

Year.	Number of Members.			Proportion of Total Wage and Salary Earners. (Per cent.)		
	Males.	Females.	Persons.	Males.	Females.	Persons.
1956	1,470,606	340,802	1,811,408	66	42	59
1957	1,463,985	346,169	1,810,154	65	42	59
1958	1,465,682	345,536	1,811,218	65	41	58
1959	1,494,669	356,058	1,850,727	65	41	58
1960	1,534,652	377,969	1,912,621	65	41	58

(v) *Interstate or Federated Trade Unions.* The following table gives particulars of the number and membership of interstate or federated trade unions in 1960:—

INTERSTATE OR FEDERATED TRADE UNIONS(a): AUSTRALIA, 1960.

Particulars.	Unions Operating in—					Total.
	2 States.	3 States.	4 States.	5 States.	6 States.	
Number of Unions	12	8	21	34	65	140
„ „ Members	37,736	33,333	215,785	460,843	929,902	1,677,599

(a) Certain unions in this group have, in addition to branches in the States, branches in the Northern Territory and/or in the Australian Capital Territory.

3. **Central Labour Organizations.**—Delegate organizations, consisting of representatives from a group of trade unions, have been established in each of the capital cities and in a number of industrial centres elsewhere. Their revenue is raised by means of a *per capita* tax on the members of each affiliated union. In most of the towns where such central organizations exist, the majority of the local unions are affiliated with the central organization, which is usually known as the Labour or the Trades Hall Council. In Western Australia, a unified system of organization extends over the industrial centres throughout the State. In this State, there is a provincial branch of the Australian Labour Party, having a central council and executive, and metropolitan and branch district councils, with which the local bodies are affiliated. The central council, on which all district councils are represented, meets periodically. In the other five States, however, the organization is not so close, and, while provision usually exists in the rules of the central council at the capital city of each State for the organization of district councils or for the representation of the central council on the local councils in the smaller industrial centres of the State, the councils in each State are generally independent bodies.

The table below shows the number of metropolitan and district or local labour councils, together with the number of unions and branches of unions affiliated therewith in each State and Territory at the end of 1960:—

CENTRAL LABOUR ORGANIZATIONS: NUMBER, AND UNIONS AND BRANCH UNIONS AFFILIATED, 1960.

Particulars.	N.S.W.	Vic.	Q'land.	S. A.	W.A.	Tas.	N.T.	A.C.T.	Total.
Number of Councils ..	11	9	12	6	10	5	..	1	54
Number of Unions and Branch Unions affiliated	305	289	178	157	386	115	..	24	1,454

The figures given in the preceding table concerning the number of unions do not necessarily represent separate unions, since the branches of a large union may be affiliated with the local trades councils in the several towns in which they are represented.

A Central Labour Organization, now called the Australian Council of Trade Unions, came into being during 1927. The Council was created to function on behalf of the trade unions of Australia, and was founded at an All-Australian Trade Union Congress held in Melbourne in May, 1927. The A.C.T.U. consists of affiliated unions and affiliated Metropolitan and/or State Labour Councils and Provincial Councils. The Metropolitan or State Labour Council in each State is the State Branch of the A.C.T.U. and has the right to appoint one representative to act on the executive of the Council. In addition to the representatives of the State Branches of the A.C.T.U., six delegates are elected by and from Congress, one from each of the following industry groups of unions:—Building, Food and Distributive Services, Manufacturing, Metal, Services, Transport. To this executive are added the four officers, namely, President, two Vice-Presidents and Secretary, who are elected by and from the Australian Congress of Trade Unions.

The ordinary meetings of Congress are held in each alternate year. Special meetings of Congress shall be held whenever deemed advisable by decisions of the executive, as approved by the majority of its branches, or by resolution of unions representing one-third of the total membership of the A.C.T.U.

The objectives of the A.C.T.U. are the socialization of industry, i.e., production, distribution and exchange, and the utilization of the resources of Australia for the benefit of the people—ensuring full employment, with rising standards of living, real security and full cultural opportunities for all. The methods to be adopted are:—the closer organization of the workers by the transformation of the Australian trade union movement from the craft to an industrial basis, by grouping of unions in their respective industries and by the amalgamation of unions with a view to the establishment of one union in each industry; the consolidation of the Australian Labour Movement, with the object of unified control, administration and action; the centralized control of industrial disputes; educational propaganda among unions; and political action to secure satisfactory working-class legislation.

The A.C.T.U. was the first interstate body in Australia with authority to deal with industrial matters of an interstate character affecting the trade union movement generally. It is also the body responsible for submitting to the Commonwealth Government the names of persons suitable for selection as the Australian workers' delegate to the annual International Labour Conference.

All the major unions are affiliated with the A.C.T.U., with the exception of the largest, the Australian Workers' Union, which is itself virtually a central organization of branches catering in the main for employees in rural and constructional pursuits.

Between the trade union and the central organization of unions may be classed certain State or district councils organized on trade lines, and composed of delegates from separate unions whose members' interests are closely connected because of their occupations. Delegate councils of bakers, bread carters and mill employees, or of unions connected directly or indirectly with the iron, steel, or brass trades, or with the building trades, may be so classed.

§ 2. International Labour Organization.

The International Labour Organization (I.L.O.) was established on 11th April, 1919, as an autonomous institution associated with the League of Nations. Its original constitution was adopted as Part XIII. of the Treaty of Versailles and formed part of other treaties of peace. During the years between its establishment and the outbreak of the 1939–45 War, the I.L.O., with headquarters at Geneva, played a leading role in promoting the improvement of labour conditions throughout the world.

In 1940, in order to ensure that the I.L.O. should be able to continue to function freely, a working centre was established at Montreal, Canada. In 1946, the Organization became the first of the specialized agencies of the United Nations. Under the terms of agreement, the United Nations recognizes the I.L.O. as a specialized agency having responsibility in the field defined by its constitution, which embraces labour conditions, industrial relations, employment organization, social security and other aspects of social policy. The Organization has three basic parts. These are the International Labour Conference, its highest authority, which as a rule meets annually; the Governing Body, its executive council, which usually meets three times each year; and the International Labour Office, which provides the secretariat of the Organization. The Conference is composed of delegations from the Member States of the Organization. At the end of 1960, there were 80 Member States, each of which is entitled to be represented by four delegates—two government, one representing employers and one representing workers, together with their advisers. Each delegate speaks and votes independently, so that all points of view in each country are fully expressed. The Governing Body consists of the representatives of twenty governments and ten employers' and ten workers' representatives. Of the twenty government representatives, half are from the ten countries of major industrial importance and ten are elected by the remaining governments. These latter ten government representatives and the ten employers' and ten workers' titular delegates and the deputy members of the three groups are elected by their groups at the Conference every three years. Since the 1939–45 War, Australia has alternated as a member and deputy member of the government group, and is at present a deputy member. Particulars are given in *Labour Report* No. 47 of the proceedings of International Labour Conferences up to the 42nd Session, held in Geneva in June, 1959. For details of I.L.O. conventions ratified by Australia see *Labour Report* No. 47, Chapter V.

CHAPTER XIII.

TRADE.

NOTE.—Because of the limitations of space, the statistics in this chapter are in the main restricted to summarized form. For details of imports and exports, reference should be made to the annual bulletins on *Oversea Trade* (preliminary and final), *Australian Exports*, and *Imports Cleared for Home Consumption*. Current information on overseas trade is contained in the *Quarterly Summary of Australian Statistics*, the *Monthly Review of Business Statistics*, the *Digest of Current Economic Statistics*, the *Monthly Bulletin of Oversea Trade Statistics*, and a preliminary monthly statement on *Australian Oversea Trade*. The *Australian Balance of Payments* (mimeograph statement) contains detailed information on this subject, and there are also the following additional mimeograph statements:—*Exports of Wool* (monthly), *Trade of Australia with the United Kingdom* (half-yearly), *Trade of Australia with Eastern Countries* (annually), and *Monthly Index of Australian Export Prices*.

§ 1. Constitutional Powers.

By the Commonwealth of Australia Constitution Act, section 51 (i), the power to make laws with respect to trade and commerce with other countries was conferred on the Commonwealth Parliament. Under section 86 of the Constitution, the collection and control of duties of customs and excise passed to the Executive Government of the Commonwealth on 1st January, 1901. Other references to trade and commerce are contained in sections 87 to 95 of the Constitution (*see pp. 18–19*).

§ 2. Commonwealth Legislation affecting Oversea Trade.

1. *General*.—The principal Acts affecting overseas trade at present in force are: The Customs Act 1901–1960; Customs Tariff 1933–1960; Customs Tariff (Canadian Preference) 1960; Customs Tariff (Industries Preservation) Act 1921–1957; Customs Tariff (New Zealand Preference) 1933–1960; Customs Tariff (Papua and New Guinea Preference) 1936–1959; Customs Tariff (Federation of Rhodesia and Nyasaland Preference) 1960; Customs Tariff (Primage Duties) 1934–1958; Trading with the Enemy Act 1939–1957.

The Customs Act is the administrative Act under which the Department of Customs and Excise operates, while the Customs Tariffs provide the statutory authority for imposing the actual rates of duty operative from time to time.

2. *The Customs Tariff*.—(i) *General*. The first Commonwealth Customs Tariff was introduced by Resolution on 8th October, 1901, from which date uniform duties came into effect throughout Australia. The tariff has since been extensively amended. The Act at present in operation is the Customs Tariff 1933–1960.

The Australian Customs Tariff has been developed in conformity with the policy of protecting economic and efficient Australian industries and of granting preferential treatment to imports from certain countries of the British Commonwealth. Duties are also imposed on some goods, generally of a luxury nature, for revenue purposes. Customs collections are a major source of revenue, but in its protective character the tariff has an important influence on the Australian economy.

Australia has three classes of tariff—the British Preferential Tariff, the Intermediate Tariff and the General Tariff.

(ii) *British Preference*. British Preferential Tariff rates of duty apply to goods the produce or manufacture of the United Kingdom, provided that such goods comply with the laws and statutory regulations in force at the time affecting the grant of preference, and that the goods have been shipped in the United Kingdom to Australia and have not been transhipped, or, if transhipped, it is proved to the satisfaction of the Collector of Customs that the intended destination of the goods, when originally shipped from the United Kingdom, was Australia. For the purpose of the preferential tariff, the following goods are deemed by section 151A of the Customs Act 1901–1960 to be the produce or manufacture of the United Kingdom, provided the final process of their production or manufacture was performed in that country:—

(a) Goods which are wholly produced or wholly manufactured in the United Kingdom from materials in one or more of the following classes:—

(i) Materials wholly produced or wholly manufactured in the United Kingdom or in Australia;

(ii) Imported unmanufactured raw materials;

(iii) Imported manufactured raw materials as determined by the Minister.

- (b) Goods of the factory or works cost of which not less than 75 per cent. is represented—
 - (i) by labour or material of the United Kingdom; or
 - (ii) by labour or material of the United Kingdom and labour or material of Australia.
- (c) Goods of a class or kind not commercially produced or manufactured in Australia and of the factory or works cost of which not less than 25 per cent. (or 50 per cent. if the Minister so determines) is represented—
 - (i) by labour or material of the United Kingdom; or
 - (ii) by labour or material of the United Kingdom and labour or material of Australia.

With the exception of a relatively small number of commodities which carry special rates of duty, the British Preferential Tariff has also been extended, as a result of separate trade agreements, to Canada and New Zealand and by tariff legislation to the Territory of Papua and New Guinea, and the abovementioned preference conditions apply *mutatis mutandis* to each of those countries, except that in respect of New Zealand the percentage content of goods under clause (b) of the said conditions is 50 per cent. of New Zealand and Australian labour and materials or 75 per cent. of New Zealand and United Kingdom or of New Zealand, Australian and United Kingdom labour and materials. In relation to specified goods, the British Preferential Tariff also applies to Ceylon, Ghana, the Federation of Malaya, Singapore, the Federation of the West Indies, and most of the British non-self-governing colonies, protectorates and trust territories.

(iii) *Intermediate Tariff.* The Intermediate Tariff has been a feature of the Australian Tariff for a considerable number of years, although its effective application dates only from 1st January, 1937, consequent upon the conclusion of trade agreements with Belgium, Czechoslovakia and France in 1936. The countries to which the Intermediate Tariff applies include those countries with which Australia has concluded trade agreements (including tariff negotiations pursuant to the General Agreement on Tariffs and Trade) and countries which accord Australia reciprocal most-favoured-nation tariff treatment by reason of agreements between those countries and the United Kingdom. The Intermediate Tariff has also been extended to some countries to which Australia has no formal obligation to accord most-favoured-nation treatment. The countries and the particular tariff items to which the Intermediate Tariff applies are specified by order made in pursuance of section 9A of the Customs Tariff 1933–1960.

(iv) *General Tariff.* The General Tariff applies to goods other than those to which the British Preferential Tariff or Intermediate Tariff or special rates under trade agreements apply.

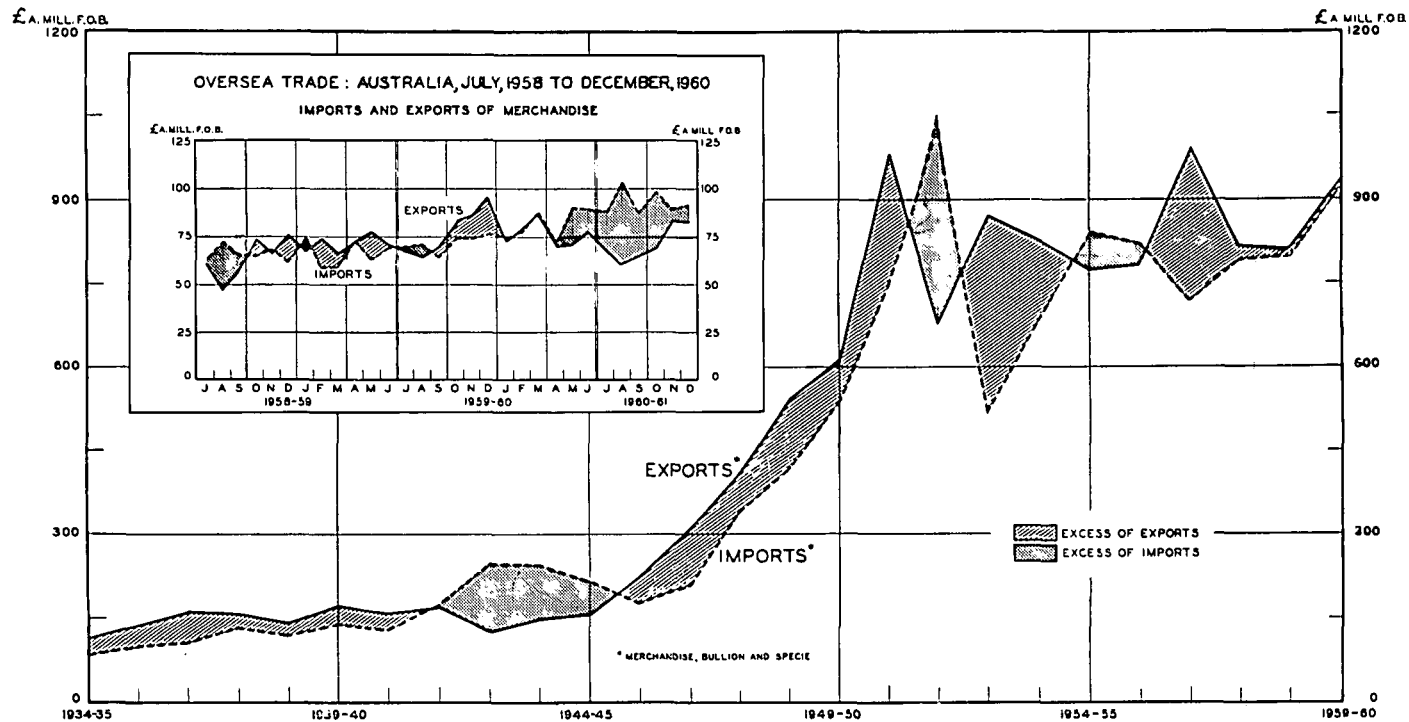
3. *Primage Duties.*—In addition to the duties imposed by the Customs Tariff, *ad valorem* primage duties at rates of 4 per cent., 5 per cent. or 10 per cent. are charged on some goods according to the type of goods and origin thereof under the Customs Tariff (Primage Duties) 1934–1958. Other goods are exempt from primage duty. Goods the produce or manufacture of New Zealand, Norfolk Island, Fiji, Cocos Islands, Christmas Island and the Territory of Papua and New Guinea are exempt from primage duty.

4. *Tariff Board.*—The Tariff Board Act 1921–1960 provides for the appointment of a Tariff Board consisting of eight members, two, but not more than three, of whom shall be officers of the Commonwealth Public Service. Members of the Board are appointed for terms of not less than one year and not more than five years. The purpose of the Tariff Board is to advise the Government on matters relating to the protection and encouragement of Australian industry and to the Customs and Excise Tariffs.

The Chairman of the Board has the duty of ensuring the efficient and orderly conduct of the business of the Board. Provision is made for the appointment of two Deputy Chairmen to whom the Chairman may delegate his powers, duties and functions under the Act.

The more important matters which the Minister of State for Trade shall refer to the Board for inquiry and report include:—the necessity for new, increased, or reduced duties; the necessity for granting bounties and the effect of existing bounties; any proposal for the application of the British Preferential Tariff or the Intermediate Tariff to any part of the British Commonwealth or any foreign country; and any complaint that a manufacturer is taking undue advantage of the protection afforded him by the Tariff by charging unnecessarily high prices for his goods or acting in restraint of trade. In addition, the Minister may refer the following matters to the Tariff Board for inquiry and report:—the general effect of the working of the Customs Tariff and the Excise Tariff; the fiscal and industrial effects of the Customs laws on the Commonwealth; the incidence between the rates of duty on raw materials and or finished or partly finished products; and other matters affecting the

OVERSEA TRADE : AUSTRALIA, 1934-35 TO 1959-60



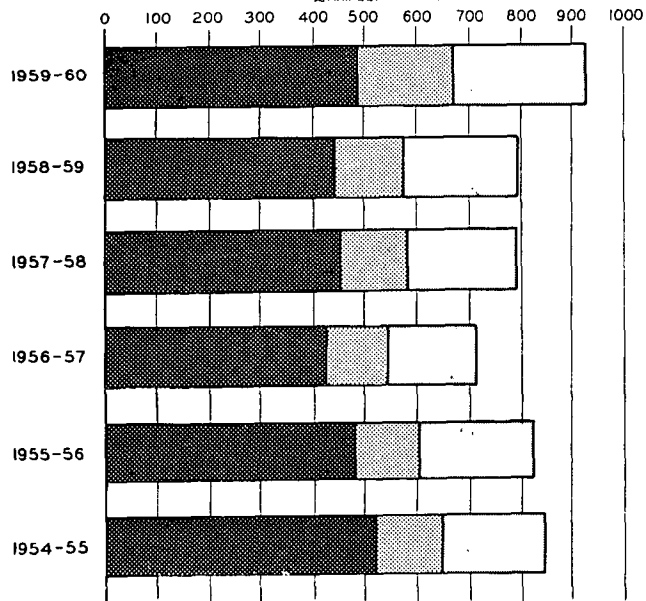
OVERSEA TRADE ACCORDING TO MONETARY GROUPS

AUSTRALIA, 1954-55 TO 1959-60

■ STERLING AREA ▨ DOLLAR AREA □ OTHER NON-STERLING AREAS

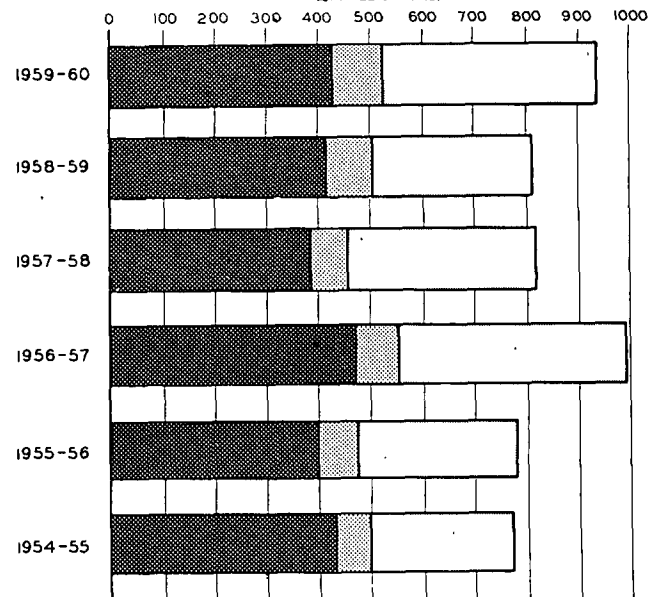
IMPORTS

£A. MILLION F.O.B.



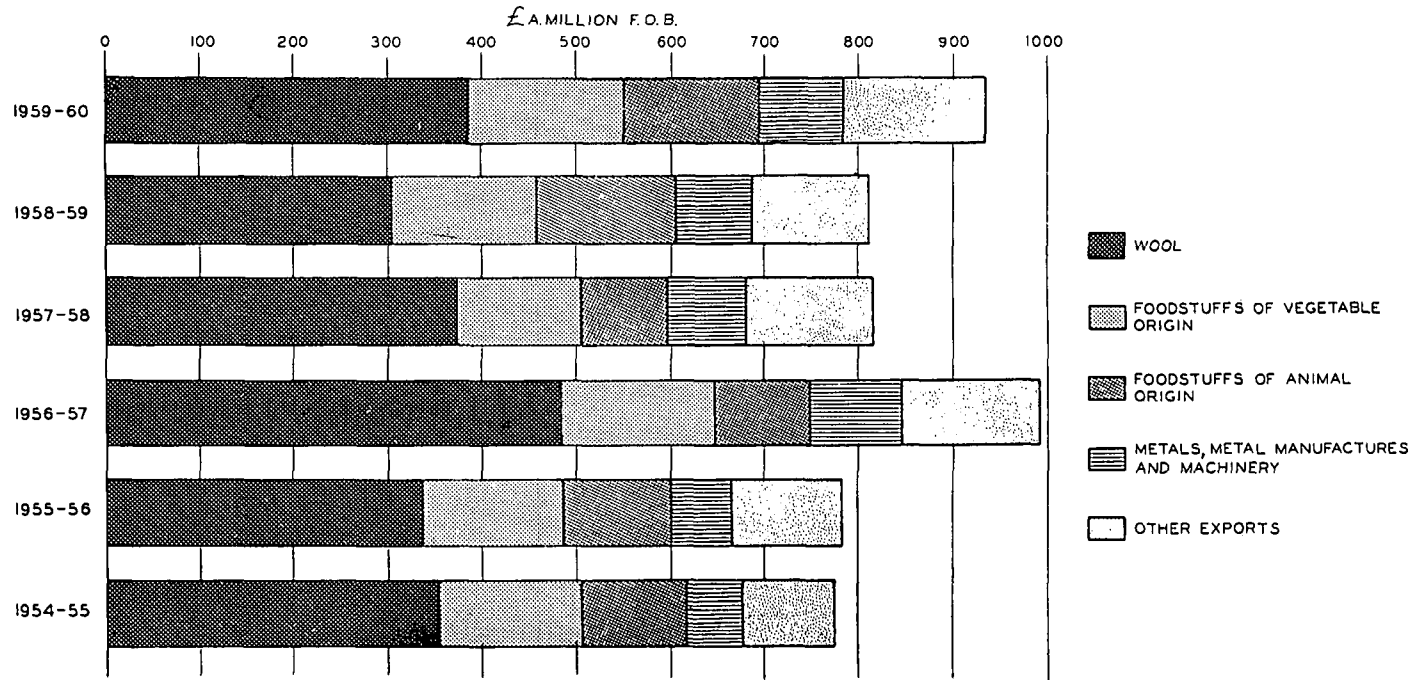
EXPORTS

£A. MILLION F.O.B.



EXPORTS OF PRINCIPAL COMMODITIES

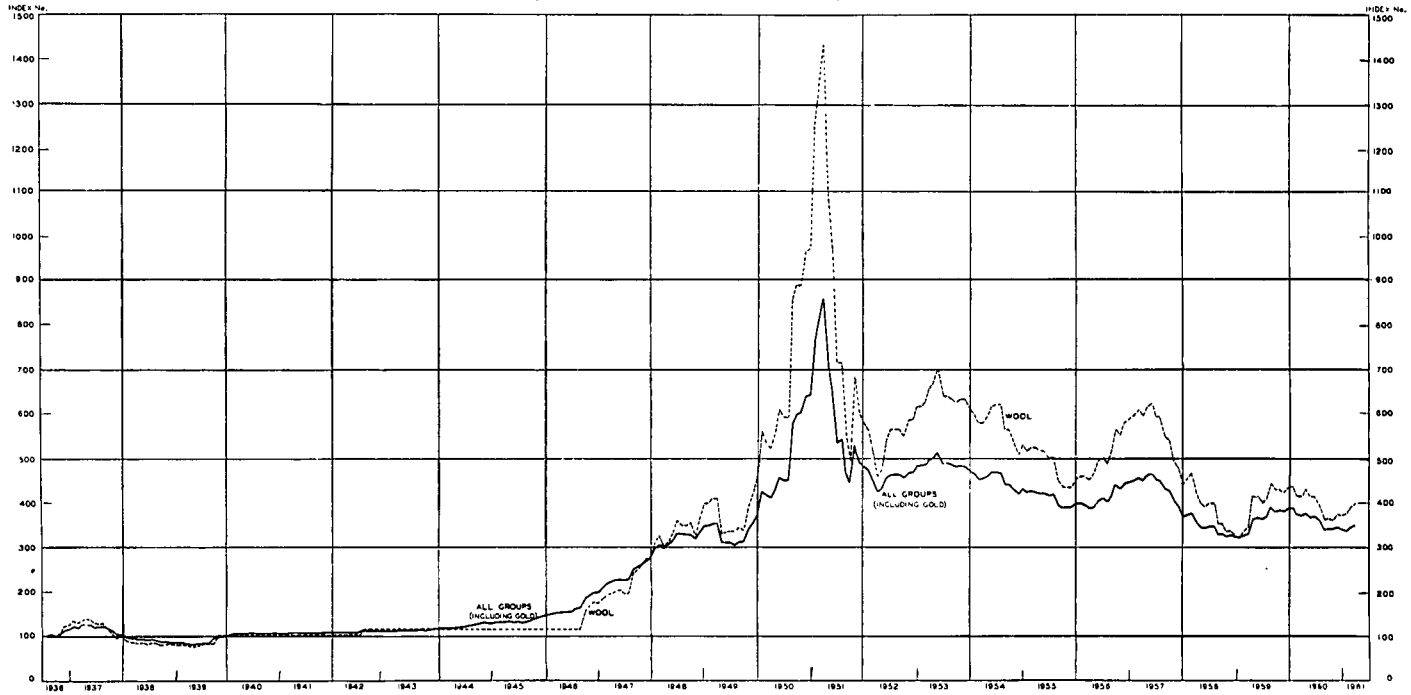
AUSTRALIA, 1954-55 TO 1959-60



EXPORT PRICE INDEX NUMBERS : AUSTRALIA, 1936 to 1961

SIMPLE AGGREGATIVE INDEX: FIXED WEIGHTS

(BASE: AVERAGE OF THREE YEARS ENDED JUNE, 1939=100)



encouragement of primary and secondary industries in relation to the Tariff. The Minister of State for Customs and Excise may refer to the Tariff Board for inquiry and report the following matters:—the classification of goods in the Customs Tariff or Excise Tariff and any matter in connexion with the interpretation of these Tariffs; the question of the value for duty of goods; whether goods not prescribed in departmental by-laws should be so prescribed; and any matters in respect of which action may be taken under the Customs Tariff (Industries Preservation) Act 1921–1957.

Inquiries conducted by the Board relating to any revision of the Tariff, any proposal for a bounty, or any complaint that a manufacturer is taking undue advantage of the protection afforded him by the Tariff shall be held in public, and evidence in such inquiries shall be taken in public on oath, unless any witness objects to giving any evidence in public which the Board is satisfied is of a confidential nature, when the Board may take such evidence in private. Evidence taken by the Board in connexion with any inquiry under the Customs Tariff (Industries Preservation) Act 1921–1957 shall be taken in public on oath.

During 1960, new legislation was introduced to enable temporary duties to be imposed in cases where urgent action is necessary to protect an Australian industry against imported goods. Under the amended Tariff Board Act, the Minister for Trade may request the Chairman of the Board to arrange for a Deputy Chairman to inquire into cases where urgent action may be necessary pending receipt and consideration of a full report by the Board. The Deputy Chairman's report must be submitted to the Minister within thirty days of the making of the request. Temporary duties recommended by a Deputy Chairman may be imposed but can only operate for a period of up to three months after the date of receipt of the final report by the Tariff Board on the goods concerned.

5. Industries Preservation.—The Customs Tariff (Industries Preservation) Act 1921–1957 provides that, after inquiry and report by the Tariff Board, special duties shall be collected in the following cases when the importation of the goods referred to might be detrimental to an Australian industry. In the case of goods sold for export to Australia at a price less than the fair market value for home consumption or at a price which is less than a reasonable price, a special dumping duty shall be collected equal to the difference between the price at which the goods were sold and the fair market value, or the difference between the price at which the goods were sold and a reasonable price. Similar provision is made for goods consigned to Australia for sale. With regard to goods exported to Australia at rates of freight less than the normal rate of freight, the dumping freight duty shall be an amount equal to the difference between the freight paid and the freight which would have been payable at the normal rate. In respect of goods exported to Australia upon which a subsidy, bounty or other financial assistance is paid or given directly or indirectly upon the production, manufacture, carriage or export of those goods, a countervailing duty shall be collected equal to the amount of the subsidy, bounty or other financial assistance.

Special duties may also be collected if dumped or subsidized goods are imported to the detriment of the trade in the Australian market of a third country.

The Act also provides for the collection of an emergency duty on goods which enter Australia under conditions which cause or threaten serious injury to Australian industries or to industries in a third country whose exports enter Australia under preferential tariff. The amount of emergency duty payable is the equivalent of the difference between the landed duty-paid cost of the goods and a reasonably competitive landed duty-paid cost.

The Act provides that the Minister for Customs and Excise may publish a notice in the *Gazette* specifying the goods upon which the special emergency duties under this Act shall thereupon be charged and collected.

6. Trade Descriptions.—The Commerce (Trade Descriptions) Act 1905–1950 gives power to require the application of a proper trade description on certain prescribed goods imported into or exported from the Commonwealth. Goods which must bear a prescribed trade description upon importation into Australia are specified in the Commerce (Imports) Regulations. As regards exports from Australia, marking requirements are prescribed in regulations issued under the Act and relating to specified export commodities.

7. Import Controls.—*Customs (Import Licensing) Regulations.* A comprehensive system of import licensing was introduced in Australia at the beginning of the second World War under the authority of the Customs (Import Licensing) Regulations, being Statutory Rules 1939, No. 163, issued under the Customs Act 1901–1936.

Between 1939 and 1945, licensing controls on imports from both sterling and non-sterling sources were progressively intensified. With the end of the War, it was possible to relax the restrictions progressively and by March, 1952, goods from the non-dollar area (excluding Japan for which special provisions applied until July, 1957) were virtually free from import licensing controls.

During the financial year 1951–52, following a fall in the price of wool and a large increase in the volume of imports, Australia incurred a substantial deficit in overall payments on current account. Oversea reserves fell rapidly in the latter part of 1951 and early 1952, endangering Australia's external financial position to such a degree that it became necessary on 8th March, 1952, to apply the Customs (Import Licensing) Regulations to imports from all sources with the exception of goods originating in Papua, New Guinea and Norfolk Island.

The extension of the restrictions on 8th March, 1952, was made under the authority of the above regulations, which had continued in force after the war. Those regulations were subsequently replaced by new Customs (Import Licensing) Regulations made under the Customs Act 1901–1954 on 16th December, 1956. The new Regulations continued to provide, *inter alia*, that the importation of any goods (not being goods which are excepted from the application of the Regulations) is prohibited unless—

- (a) a licence under these Regulations to import the goods is in force; and
- (b) the conditions and restrictions (if any) to which the licence is subject are complied with.

The object of import licensing has been to limit the rate of imports to a ceiling figure, determined by the Government, in order that payments for imports do not involve an excessive drawing on Australia's overseas exchange reserves. To achieve the financial objectives of the controls, imports were divided into a number of categories to which special licensing treatment was accorded (largely by the establishment of quotas for individual importers within each category). In general, the nature of goods and their relative essentiality to the Australian economy were taken into account in determining the licensing rate for particular goods.

Since March, 1952, import restrictions have been relaxed or intensified broadly in line with changes in Australia's balance of payments position.

The import controls have been administered without discrimination as to country of origin, with the exception of those relating to imports from Japan and the Dollar Area. The special restrictions against Japanese imports were removed in July, 1957, and in recent years Australia progressively removed discrimination against imports from the Dollar Area. By January, 1960, approximately 95 per cent. of total imports were not subject to dollar discrimination.

In accordance with the principle of relaxing and removing controls in the light of developments in Australia's balance of payments position, large-scale licensing changes involving an almost complete abolition of controls were made as from 23rd February, 1960. As a result of these changes, some 90 per cent. of total imports were exempted from control. On 1st April, 1960, timber was also added to the exempt list, and following the exemption from control of motor vehicles of North American origin as from 1st October, 1960, there is now no discrimination as to country of origin in the administration of import controls.

Licensing was retained, on the bulk of the items which remain under control, for the purpose of providing licensing statistics, which have been very useful in the administration of the Japanese Trade Agreement. They will remain under control until, after consultation with industry and commerce, suitable alternative arrangements can be made.

A few other items for which special problems exist will be removed from control when the problems associated with them have been resolved.

In respect of most of the items which continue to be licensed, provision was also made under the recent relaxations for licensing at a higher rate.

The Government has announced its intention of removing this remaining element of licensing control as soon as possible.

The retention of control over a small field of trade does not imply any departure from the Government's policy of using the Customs Tariff and the Tariff Board machinery as the normal method of protecting economic and efficient Australian industries from import competition.

The administration of the import controls is the responsibility of the Department of Trade, although the actual issue of import licences is a function of the Department of Customs and Excise at the various ports of the Commonwealth.

8. *Export Controls.*—(i) *Commodity Control.* Section 112 of the Customs Act provides that the Governor-General may, by regulation, prohibit the exportation of goods from Australia and that this power may be exercised by—(a) prohibiting the exportation of goods absolutely; (b) prohibiting the exportation of goods to a specified place; and (c) prohibiting the exportation of goods unless prescribed conditions or restrictions are complied with. Goods subject to this export control are listed in the Customs (Prohibited Exports) Regulations.

(ii) *Exchange—Banking Act 1959.* As an integral part of the framework of exchange control, a control over goods exported from Australia is maintained under the provisions of Part III. of the Banking (Foreign Exchange) Regulations, to ensure that the full proceeds of such goods are received into the Australian banking system and that these proceeds are received in the currency and in the manner prescribed by the Reserve Bank of Australia. This action is complementary to that taken under other parts of the Banking (Foreign Exchange) Regulations and under Part IV. of the *Banking Act 1959* to control the movement out of Australia of capital in the form of securities, currency and gold.

Export licences are issued subject to terms and conditions specified in the Banking (Foreign Exchange) Regulations and may be subject to such further terms and conditions as are determined or may be free from terms and conditions. On the receipt in Australia by the Reserve Bank, or by a bank acting as agent for that Bank, of advice that the foreign currency has been paid to the Reserve Bank or to an agent of the Bank in payment for goods exported in accordance with a licence granted under the regulations, the Bank, or an agent of the Bank, pays the licensee, or such other person as is entitled to receive it, an amount in Australian currency equivalent to the foreign currency received. In addition to commercial transactions involving exports, movements of personal effects are also controlled. Persons leaving Australia for overseas are required to obtain licences to cover their bona fide baggage, personal effects and household effects in any individual case where the gold content thereof exceeds £A125, or where jewellery and other articles of high intrinsic worth either exceed £A1,000 in value or have not been the personal property of the passenger for at least twelve months.

9. *Trade Agreements.*—(i) *The United Kingdom.* The original United Kingdom and Australia Trade Agreement (Ottawa Agreement) was signed on 20th August, 1932. Under this agreement, Australia secured preferences in the United Kingdom market for a wide range of Australian export commodities, and in return incurred obligations in respect of tariff levels and the grant of preference to United Kingdom goods.

A new Trade Agreement, designed to replace the original agreement and correct the unbalance in benefits which had emerged in the 25 years of its operation, was signed in Canberra on 26th February, 1957. Briefly, the new agreement preserved security for Australian exports in the United Kingdom market, but lowered the obligatory margins of preference which Australia extends to the United Kingdom.

(ii) *Canada.* The existing agreement between Australia and Canada came into force on 30th June, 1960, replacing an agreement signed on 3rd August, 1931. The agreement provides for Australian goods to receive British Preferential Tariff rates, or better, upon entry into Canada and for Canada to maintain margins of preference in favour of Australia on a range of commodities. With some exceptions, the agreement specifies that Canadian goods shall receive the benefit of the British Preferential Tariff upon importation into Australia. The agreement continues in force until either country gives six months notice of termination.

(iii) *New Zealand.* The existing trade agreement between Australia and New Zealand came into force on 1st December, 1933. The basis of the agreement is, generally, the mutual accord of British Preferential Tariff treatment. The exceptions to this general rule are listed in the schedules to the agreement.

The Customs Tariff (New Zealand Preference) 1933-1959 gives legislative effect to the provisions of the agreement.

(iv) *Federation of Rhodesia and Nyasaland.* During June, 1955, a trade agreement was negotiated with the Federation. Australia's principal undertaking was to grant an exclusive tariff preference to the Federation on unmanufactured tobacco, a concession formerly accorded only to Southern Rhodesia, under a trade agreement now terminated. The Federation accorded preferential tariff treatment on a wide range of Australian export products, including wheat and powdered and condensed milk.

(v) *Federation of Malaya.* A trade agreement with the Federation was signed on 26th August, 1958, and came into force immediately. The agreement gives an assurance that Australia's traditional flour trade will be protected from subsidized or dumped competition. An undertaking is given that any tariff preferences Malaya accords will be extended also to Australia. Australia guaranteed free entry for natural rubber so long as the Papua-New Guinea crop is absorbed, and assured the Federation that natural rubber would not be at a disadvantage compared with synthetic rubber in respect of tariff or import licensing treatment.

(vi) *Japan.* An Agreement on Commerce between the Commonwealth of Australia and Japan was signed on 6th July, 1957, in Japan. Formal ratification took place in Canberra on 4th December, 1957, following approval of the agreement by the Commonwealth Parliament and the Japanese Diet. The agreement will remain in force until 5th July, 1960, and thereafter unless prior notice of termination is given by either Government.

The agreement provides that each country shall extend most-favoured-nation treatment to the other in respect of customs duties and similar charges and import and export licensing. Japan will not be entitled to claim the benefit of preferences accorded by Australia to Commonwealth countries and dependent territories.

All Japanese goods are now entitled to the most-favoured-nation rate of duty on importation into Australia, whereas previously the general rate applied. The reductions involved have not been significant.

Australia received certain specific undertakings. Japan agreed:—

- (a) To accord Australian wool the opportunity of competing in the global quota for wool for not less than 90 per cent. of the total foreign exchange allocation for wool each year and not to restrict the total foreign exchange allocation for wool beyond the extent necessary to safeguard Japan's external financial position and balance of payments;
- (b) to take no action to vary the present level of duty on wool imports from Australia—initially for a period of three years from date of signature but subsequently extended;
- (c) to admit Australian wheat and barley on a competitive and non-discriminatory basis;
- (d) to accord Australian sugar the opportunity of competing for not less than 40 per cent. of the total foreign exchange allocation for sugar;
- (e) to include Australia as a permitted source of supply for beef tallow and cattle hides on the Automatic Approval (licensing) list;
- (f) to admit Australian dried skim milk on a competitive and non-discriminatory basis;
- (g) to make reasonable provision for the import of Australian dried vine fruits (raisins, currants and sultanas) in each year of the three-year period.

It was agreed that before the end of the initial three-year period of the agreement the two Governments would explore the possibility of applying the General Agreement on Tariffs and Trade between the two countries. Preliminary discussions on this and other aspects of the Agreement took place in Tokyo in October, 1960.

Provision exists for either country to suspend obligations under the agreement to the extent and for such time as may be necessary to prevent serious injury to domestic producers as a result of imports of like or directly competitive products from the other country.

(vii) *Federal Republic of Germany.* This agreement was signed in October, 1959, and is operative for the period July, 1959, to December, 1961, although there is provision for it to be extended beyond that date, if agreed to by both countries. Under the agreement, annual import quotas are provided for Australian wheat, coarse grains, frozen and canned meat, fruits preserved in sugar, canned tropical fruit and wine.

The agreement also provides for Australia to be included in all global tenders for whole and skim milk powder, butter, cheese, apples, pears, canned fruits, jam and casein.

The Agreed Minute on the export of flour from the Federal Republic of Germany to certain traditional Australian flour markets was also signed in October, 1959. The Agreed Minute is valid for the two years 1960 and 1961, with provision for extension.

(viii) *Indonesia.* This agreement came into operation on 1st July, 1959. It records the desirability of expanding trade between Australia and Indonesia. It also gives special recognition to the importance of the flour trade from Australia to Indonesia.

(ix) *Other Countries.* Australia has entered into bilateral agreements with South Africa, Brazil, Czechoslovakia, France, Greece and Switzerland. Summaries of the texts of these agreements were given in earlier issues of the Official Year Book. In 1951, Australia entered into a trade agreement with Israel under which each country undertook to accord most-favoured-nation tariff treatment to imports from the other. A similar agreement with Iceland was concluded in 1952.

(x) *The General Agreement on Tariffs and Trade (G.A.T.T.).* The General Agreement on Tariffs and Trade is an international trade agreement which has been in operation since 1st January, 1948. Australia is one of the original contracting parties to the General Agreement on Tariffs and Trade.

The objectives of the G.A.T.T. include the expansion of world trade and the raising of living standards throughout the world. Its members work towards these objectives by the reduction of tariffs and other barriers to trade and of discrimination between countries through negotiations on a reciprocal and mutually advantageous basis. The essential features of the G.A.T.T. are the schedules of tariff concessions which its members have agreed to apply in tariff negotiations with each other, the application of most-favoured-nation treatment among its members, the avoidance of trade discrimination, and a code of agreed commercial policy rules for fair international trading.

G.A.T.T. is at present being applied pursuant to the Protocol of Provisional Application under which its members apply the commercial policy rules (contained in Part II. of the Agreement) to the fullest extent consistent with legislation existing at the time of becoming members.

Four series of tariff negotiations have been conducted under the provisions of the General Agreement. As a result of these negotiations, Australia has obtained tariff concessions on almost all the principal products of which she is an actual or potential exporter to the individual countries concerned. These concessions were a result both of direct negotiation by Australia and of negotiations by other countries—in the latter case benefits occur through the operation under the Agreement of the most-favoured-nation principle. Preparations have been made for a fifth round of tariff negotiations to commence in 1961.

In 1954–55, some of the provisions of the G.A.T.T. were revised. The revised G.A.T.T. contains tighter provisions on non-tariff barriers to trade. These barriers are in many respects more significant for some of the export items of interest to Australia. The revised G.A.T.T. also gives more freedom for countries like Australia to revise individual tariff items which had been "bound" against increase in tariff negotiations conducted under the G.A.T.T. In 1958, a Committee was set up to examine problems of expansion of trade in agricultural products.

There are at present (May, 1961) 38 Contracting Parties to the Agreement comprising most of the world's larger trading nations, and a further 8 countries are seeking accession or have some provisional association with the G.A.T.T. The Contracting Parties periodically hold plenary sessions to deal with the questions arising out of the administration of the Agreement. The 17th Session was held in Geneva in October and November, 1960. The 18th Session will be held in May, 1961. A permanent Council has been set up to deal with urgent business arising between sessions and to give preliminary consideration to work arising at the sessions.

§ 3. Imperial Preference in the United Kingdom.

1. **Preferential Tariff of the United Kingdom.**—A brief summary of the preferential tariff of the United Kingdom in the years prior to 1931 was published in Official Year Book No. 43, page 328.

By 1931, the United Kingdom imposed duties on a fairly wide range of goods, provision being made in all cases for preferential treatment to Empire goods. The important preferences for Australia were those on sugar, dried fruit, wine, and jams and jellies. Even at this time, however, the United Kingdom adhered to the principles of free trade and by far the greater part of imports was free of duty.

In order to counteract the flood of dumping which followed the collapse of world trade in 1929-30, the United Kingdom introduced emergency tariff legislation in 1931. *Ad valorem* duties were imposed on almost all goods imported into the United Kingdom with the exception of certain raw materials, goods from Empire countries being exempt from these duties. These temporary measures were embodied in the Import Duties Act of March, 1932, by the enactment of which the United Kingdom finally abandoned free trade as a policy. This Act provided for the free entry for Empire goods pending the conclusion of some permanent agreement. The Ottawa Agreements Act of November, 1932, emerged from the Imperial Economic Conference held in Ottawa and embodied agreements concluded between the United Kingdom and the Dominions, Newfoundland and Southern Rhodesia. For the purpose of considering the present preferences enjoyed by Australia in the United Kingdom, it is expedient to regard the Import Duties Act and the Ottawa Agreements Act as complementary.

The Import Duties Act provided for the imposition of a general *ad valorem* duty of 10 per cent. on all imports with certain exceptions (i.e., those on the Free List and those already dutiable under previous enactments). Additional duties could be imposed and items on the Free List subjected to duty, and in fact the range of items subject to duties under this Act has been extended from time to time since its enactment.

The freedom of Empire goods from these duties was guaranteed under the Ottawa Agreements Act, which also provided for the imposition of new duties on imports from foreign, but not Empire, countries of a number of products of special interest to the Empire countries concerned. While free entry was guaranteed to Empire producers on a wide range of products, the margins of preference thereby applicable were not bound, and the duties could be varied up or down by the United Kingdom Government without the consent of Empire countries. On a selected range of items, however, which are specified in the schedules to the Ottawa Agreements Act, the duties could not be varied by the United Kingdom without the consent of the other party to the respective agreement.

Since 30th October, 1947, Canada and the United Kingdom have, by an exchange of letters, recognized the rights of their respective Governments to reduce or eliminate the preferences they accord one another without prior consultation or consent.

In 1947, the United Kingdom and Australia adhered to the General Agreement on Tariffs and Trade, which prohibits increases in tariff preferences by either country. This rule, as is the case with the other provisions of the General Agreement, may be waived by a two-thirds majority of the signatories to the agreement.

2. **The Australia-United Kingdom Trade Agreement.**—The provisions and history of the original Australia-United Kingdom Agreement (Ottawa Agreement) were published in Official Year Book No. 43, page 329.

The major provisions of the current agreement (signed in Canberra on 26th February, 1957) which affect Australia's position in the United Kingdom market are as follows:—

- (a) Continued free entry for those Australian goods in which Australia has an active trade interest, and which were accorded free entry immediately prior to the new agreement.
- (b) A guaranteed minimum margin of preference in the United Kingdom Tariff on all items so treated in the previous agreement plus an extension of this guarantee to several items on which the margin of preference, although

in force, was not bound to Australia. This latter group comprised currants, egg powder and egg pulp, jam, rice, tomato juice, pineapple juice and coconut oil. A selection of the items on which Australia receives a bound margin of preference and the extent of that preference is as follows (all values in sterling):—Butter (15s. a cwt.); cheese (15 per cent. *ad val.*); canned peaches, pears and apricots (12 per cent. *ad val.*); raisins (8s. 6d. a cwt.); eggs in shells (1s. to 1s. 9d. a great hundred (10 dozen)); milk powder (6s. a cwt.); sweetened condensed milk (5s. a cwt.); apples (4s. 6d. a cwt. in season); honey (5s. a cwt.); flour (10 per cent. *ad val.*); light wine (2s. a gallon); heavy wine (10s. a gallon at present duty rate).

- (c) All rights under the Ottawa Agreement in respect of meat are maintained.
- (d) Australia receives an assured wheat market of at least 750,000 tons f.a.q. wheat or flour equivalent annually. Any Australian high-protein wheat sold to the United Kingdom is not counted against this obligation.
- (e) There is provision for full consultation between the two Governments on such matters as agricultural production and marketing, transport and communication, the disposal of surpluses and restrictive business practices.
- (f) The two Governments declared their intention to introduce legislation which will enable them to impose anti-dumping or countervailing duties where material injury is caused or threatened to the other party.
- (g) The agreement shall be the subject of re-negotiation between the two Governments in 1961.

3. Recent Developments affecting the Operation of the Trade Agreement.—The effect of increases in commodity prices in the post-war period has been to reduce the effective value of those preference margins which are expressed in terms of British currency ("specific margins"). The commodities affected are butter, eggs, canned apples, loganberries, pineapples, tropical fruit salad, raisins, dried apricots, sugar, lactose, and wines. The following table shows, for selected items, how the *ad valorem* incidence of specific preference margins originally negotiated in 1932 and rebound in the 1957 agreement has been reduced by increases in the average value of the commodities on which they are granted.

IMPERIAL PREFERENCE: CHANGES IN VALUE OF PREFERENCES.

Ad Valorem Incidence of Specific Preferences Received by Australia in the United Kingdom.

Commodity.	Preference Margin.	Ad Valorem Incidence.(a) (Per cent.)					
		1938.	1947.	1954.	1956.	1958.	1959.
Sugar, raw ..	£3 14s. 8d. a ton ..	35.8	12.2	9.4	8.7	10.5	11.8
Butter ..	15s. a cwt. ..	13.3	7.6	4.3	4.6	6.5	4.5
Canned pineapple ..	5s. a cwt. ..	21.4	5.5	2.9	3.5	4.3	4.8
Currants ..	2s. a cwt. ..	7.2	2.8	2.4	1.8	1.8	1.8
Raisins ..	10s. 6d. a cwt. to 1947; 8s. 6d. a cwt. from 1948	31.2	13.1	9.7	8.0	6.2	6.2
Honey ..	7s. a cwt. to 1938; 5s. a cwt. from 1939	19.0	6.8	5.4	3.8	4.8	5.1
Milk, dried, whole ..	6s. a cwt. ..	8.7	4.7	2.9	3.1	3.2	3.3
Milk, dried, skim ..	6s. a cwt. ..	20.1	7.4	7.0	7.3	8.6	7.6
Apples ..	4s. 6d. a cwt. ..	26.4	9.9	5.9	5.4	4.8	5.8
Pears ..	4s. 6d. a cwt. ..	19.5	6.7	5.3	4.9	5.1	5.4

(a) The *ad valorem* incidence of a preference is calculated by expressing the specific margin of preference (in £ sterling a cwt., a ton, etc.) on a particular commodity as a percentage of the average unit value (in £ sterling a cwt., a ton, etc.) of United Kingdom imports of that commodity from all sources in the year concerned.

§ 4. Trade Commissioner Service.

The stimulation of interest abroad in Australia's exports is an important Government activity in which the Australian Trade Commissioner Service plays a prominent part. The origin of the Service dates back to 1921, when the first Trade Commissioner was appointed to Shanghai. In the following year, a second Commissioner was appointed to Singapore. These appointments, however, were terminated shortly afterwards.

In 1929, a Trade Commissioner post was opened at Toronto. Wellington was opened five years later. The Trade Commissioners Act 1933 provided for the establishment of an Australian Government Trade Commissioner Service. In 1935, official trade representation was established at Batavia (now Djakarta), Shanghai and Tokyo. Cairo, New York and Calcutta posts were opened between 1937 and 1939 and the Singapore post was established in 1941.

After the War, the service increased steadily to take care of Australia's expanding export interests and the growing diversity of our export commodities; by October, 1960, there were 33 Trade Commissioner posts in 24 countries, new posts having been opened in Accra (Ghana), August, 1960, Nairobi, February, 1960, and Cairo, October, 1960. With the continuing need to take advantage of new markets, the opening of a number of new posts is being considered.

In 1957, Australia's official commercial representation overseas was extended by the introduction of a system of Government Trade Correspondents. These men, who as a rule already reside in particular centres overseas, are engaged on a part-time basis to carry out market research, arrange introductions between buyer and seller, and generally promote Australia's trade interests in the same way as Trade Commissioners. Each Trade Correspondent operates under the general direction of the nearest Trade Commissioner and acts as a point of local contact for him.

The first two Australian Trade Correspondents were appointed in 1957 at Montevideo (Uruguay) and Nairobi (Kenya). In 1958, four more were appointed at Nadi (Fiji), Honolulu, Mauritius and Mexico City. One additional appointment was made at Taiwan in 1960. Further limited expansion of this form of official commercial representation is contemplated. The Australian Trade Correspondent at Nairobi has been replaced by an Australian Government Trade Commissioner.

Trade Commissioners and, to a lesser extent, Trade Correspondents, are responsible for commercial intelligence in their territories. Particular facilities provided for Australian exporters and export organizations include the following:—

- (a) Surveys of market prospects;
- (b) Advice on selling and advertising methods;
- (c) Arranging introductions with buyers and agents;
- (d) Providing reports on the standing of overseas firms;
- (e) Advice and assistance to business visitors;
- (f) Helping to organize and carry through trade missions, trade displays, newspaper supplements and other promotion and publicity media;
- (g) Providing information on import duties, import licensing, economic conditions, quarantine and sanitary requirements and other factors affecting the entry and sale of goods.
- (h) Helping to attract desirable investment.

In some countries, Trade Commissioners also participate in inter-governmental negotiations in the economic and commercial fields. In certain countries where there is no diplomatic or consular mission (the Federation of West Indies, Hong Kong, the Federation of Rhodesia and Nyasaland, and Sweden), he is called upon to act as the Australian representative.

Trade Commissioners usually enter the Service from either the commercial world or the public service, and applications for entry into the Service are called for periodically by public advertisement. In the more important posts, it is the practice for the Trade Commissioner to share his duties with an Assistant Trade Commissioner, who is selected to be trained in the Service and qualify at a later stage for appointment as a Trade Commissioner. These staffing arrangements are designed to enable the Government to draw upon experienced and able executives in both private enterprise and the public service, and at the same time to build up a body of competent personnel to carry out a policy of vigorous expansion in the field of overseas trade.

The Trade Commissioner Service is administered by the Commonwealth Department of Trade (as distinct from the diplomatic and consular services, administered by the Department of External Affairs), but in countries where there is an Australian diplomatic or consular mission it is the practice for Trade Commissioners to be attached to the mission and to hold an appropriate diplomatic or consular rank (Commercial Counsellor, Commercial Secretary or Commercial Attaché).

The overseas trade representation is shown in Chapter XXX.—Miscellaneous.

§ 5. Export Payments Insurance Corporation.

The Export Payments Insurance Corporation Act No. 32 of 1956, established the Corporation with the objective of protecting Australian exporters against risks of loss arising from non-payment of their overseas accounts.

The Corporation is charged to be self-supporting, that is, over a period it is to operate at neither a profit nor a loss. It operates on principles similar to those of any other form of insurance, in as much as in return for payment of a premium the exporter can claim on the Corporation in the event of non-payment by his buyer for any of the reasons set out in his policy. There is no overlap with normal insurance facilities, since the Corporation does not cover risks which can normally be insured with commercial insurers.

The main risks of loss against which the Corporation insures are the "commercial" risks of the insolvency or protracted default of the buyer and "political" risks. The latter include exchange transfer delays; the imposition of Government regulations which prevent the import of goods into the buyer's country; war or revolution in the buyer's country; and generally any other cause not being within the control of the exporter or the buyer, and which arises from events occurring outside Australia. Prior to December, 1959, the Corporation could extend cover only to 85 per cent. for all types of risks insured. From that time, however, cover on the "political" risks was increased to a maximum of 90 per cent. for the amount of loss in the pre-shipment period and a maximum of 95 per cent. in the post-shipment period. The cover for "commercial" risks remains at 85 per cent.

The initial capital of the Corporation was £500,000 and the maximum liability limit of the Corporation was £25,000,000. In April, 1959, these limits were doubled to £1,000,000 and £50,000,000 respectively to enable the Corporation to meet fully the demands of the Australian exporters for this facility.

The Corporation itself does not provide finance for exporters, but the stated policy of the trading banks is that E.P.I.C. guarantees considerably reduce the risks involved in the export trade, and this can assist the exporter in obtaining such finance as he requires.

Since the first policy was issued in September, 1957, Australian exporters have made increasing use of the facilities of the Corporation. On 30th September, 1960, the Corporation had 143 policies current to the value of over £26,000,000—compared with 91 policies current to the value of £24,000,000 on 30th September, 1959. The Corporation has issued policies covering exports to over 100 countries, and has insured a wide range of Australian exports.

A Consultative Council of leading figures in the fields of insurance, commerce and industry has been appointed to advise the Corporation on its activities.

§ 6. Method of Recording Imports and Exports.

1. **Source of Statistics.**—Overseas trade statistics are compiled from documents obtained under the Customs Act 1901–1960 and supplied to this Bureau by the Department of Customs and Excise. Certain items are excluded for which customs entries are not required. See para. 7 (vii) Balance of Payments, page 493.

2. **Customs Area.**—The Customs Area, to which all overseas trade statistics issued by this Bureau apply, is the whole area of the Commonwealth of Australia. Non-contiguous territories are treated as outside countries, and trade transactions between Australia and these non-contiguous territories are part of the overseas trade of Australia. Such transactions are shown separately, i.e., the trade of Australia with each particular country is separately recorded and tabulated.

3. **The Trade System.**—There are two generally accepted systems of recording overseas trade statistics, namely, (a) special trade and (b) general trade. Statistics of both are published by the Bureau, although greater emphasis is placed on general trade. The Statistical Office of the United Nations defines the two systems as follows:—

- (a) *Special Trade.* Special imports are the combined total of imports directly for domestic consumption and withdrawals from bonded warehouses or free zones for domestic consumption, transformation or repair. Special exports comprise exports of national merchandise, namely, goods wholly or partly produced or manufactured in the country, together with exports of nationalized goods. (Nationalized goods are goods which, having been included in special imports, are then exported.)
- (b) *General Trade.* General imports are the combined total of imports directly for domestic consumption and imports into bonded warehouse or free zone. Direct transit trade and trans-shipment under bond are excluded. General exports are the combined total of national exports and re-exports of imported merchandise including withdrawals from bonded warehouse or free zone for re-export.

The tables which follow refer to general trade, except for those appearing in § 17, para. 2, which refer to imports cleared for home consumption.

4. **Statistical Classification of Imports and Exports.**—Statistics of overseas imports and exports from which the summary tables in this issue of the Official Year Book have been extracted were compiled according to the revised classification which came into operation on 1st July, 1945. This classification is designed to allow for the inclusion of items which become significant with varying trade conditions, and in 1959–60 provided for over 2,500 import items and over 1,200 export items.

5. **The Trade Year.**—From 1st July, 1914, the statistics relating to overseas trade have been shown according to the financial year (July to June). Prior to that date, the figures related to the calendar year. A table is included in § 18 showing the total value of imports and exports in the calendar years 1956 to 1960 inclusive.

6. **Valuation.**—(i) *Imports.* The recorded value of goods imported from countries beyond Australia as shown in the following tables represents the amount on which duty is payable or would be payable if the duty were charged *ad valorem*.

Section 154 (1) of the Customs Act 1901–1960 provides that “when any duty is imposed according to value, the value for duty shall be the sum of the following:—

- (a) (i) the actual money price paid or to be paid for the goods by the Australian importer plus any special deduction, or
- (ii) the current domestic value of the goods, whichever is the higher; and
- (b) all charges payable or ordinarily payable for placing the goods free on board at the port of export.”

“Current domestic value” is defined as “the amount for which the seller of the goods to the purchaser in Australia is selling or would be prepared to sell for cash, at the date of exportation of those goods, the same quantity of identically similar goods to any and every purchaser in the country of export for consumption in that country”. All import values shown throughout this and other chapters of this issue of the Official Year Book are therefore “transaction value (f.o.b.)” or “domestic value (f.o.b.)”, whichever is the higher. These values are f.o.b. port of shipment Australian currency.

(ii) *Exports.* Since 1st July, 1937, the following revised definitions of f.o.b. values have been adopted for exports generally:—

- (a) Goods sold to overseas buyers before export—the f.o.b. port of shipment equivalent of the price at which the goods were sold (e.g., as regards wool, the actual price paid by the overseas buyer plus the cost of all services incurred by him in placing the wool on board ship).
- (b) Goods shipped on consignment—the Australian f.o.b. port of shipment equivalent of the current price offering for similar goods of Australian origin in the principal markets of the country to which the goods were dispatched for sale (as regards wool, the f.o.b. port of shipment equivalent of the current price ruling in Australia will normally provide a sufficient approximation to the f.o.b. port of shipment equivalent of the price ultimately received).

Exporters are required to show all values in terms of Australian currency, and to include the cost of containers.

An account of the bases of valuation in operation prior to 1st July, 1937, was given on page 469 of Official Year Book No. 39.

7. Inclusions and Exclusions.—(i) *Ships' and Aircraft Stores.* Prior to 1906, goods shipped in Australian ports on overseas vessels as ships' stores were included as exports. From 1906, ships' and subsequently aircraft stores have been specially recorded as such, and omitted from the tabulation of exports. A table showing the value of these stores shipped each year since 1955–56 is shown on page 506.

(ii) *Outside Packages.* Outside packages (containers, crates, etc.) have always been included as a separate item in the tabulation of imports, but, except for those received from the United Kingdom, a classification according to country of origin has been available only since 1950–51. For exports, however, the value recorded for each item includes the value of the outside package.

(iii) *Trade on Government Account.* Imports and exports on Government account are treated as normal transactions and are an integral part of overseas trade transactions.

(iv) *Currency.* Notes, and coins of base metal are included in the overseas trade statistics at their commodity value only.

(v) *Gold Content of Ores and Concentrates.* The value of ores and concentrates imported and exported includes the value of the gold content. The latter is not recorded separately for purposes of inclusion in imports and exports of gold.

(vi) *Migrants' Effects.* Migrants' effects are included in imports and exports.

(vii) *Balance of Payments.* Statistics relating to overseas trade do not measure Australia's total balance of payments during the periods shown. For items such as naval ships, merchant vessels trading overseas, aircraft for use on overseas routes, uranium, and certain materials for inter-governmental defence projects, no customs entries are recorded, but these transactions are taken into account in estimating the balance of payments. Particulars of other transactions entering into the balance of payments (in particular, freight and insurance charges payable overseas, current production of Australian gold, overseas payments of dividends, profits, interest and royalties, Government expenditure overseas, etc.) are shown in a printed bulletin published by the Commonwealth Statistician entitled *The Australian Balance of Payments, 1928–29 to 1951–52*. Estimates have been published in mimeographed form for the years 1951–52 to 1959–60. See also § 21, page 516.

8. Countries to which Trade is Credited.—(i) *Imports.* From 1st January, 1905, in addition to the record of the countries whence goods arrived directly in Australia, a record of the countries of their origin was kept, as it was considered that classification of imports according to country of origin was of greater interest and value than classification according to country of shipment. Up to and including the year 1920–21, imports continued to be classified both according to country of shipment and according to country of origin, but the former tabulation was discontinued as from the year 1921–22.

(ii) *Exports.* In the export sections of tables in this chapter, "country" refers to country of consignment.

9. Pre-Federation Records.—In the years preceding Federation, each State recorded its trade independently and in so doing did not distinguish other Australian States from foreign countries. As the aggregation of the records of the several States is necessarily the only available means of ascertaining the trade of Australia for comparison with later years, it is unfortunate that past records of values and the direction of imports and exports were not on uniform lines. Imports and exports for years prior to Federation may be found in issues of the Official Year Book prior to No. 41. On the introduction of the Customs Act 1901, the methods of recording values were made uniform throughout the States.

§ 7. Total Oversea Trade.

1. **Including Gold.**—The following table shows the total trade (including gold) of Australia with overseas countries from 1901 to 1959–60. The period 1901 to 1950–51 has been divided into five-year periods, and the figures shown represent the annual averages for the periods specified. Figures for the individual years were published in Official Year Book No. 40 and earlier issues, but it should be borne in mind that the figures for imports in issues prior to No. 37 were in British currency.

In this chapter, the values in all tables of imports and exports are shown in Australian currency f.o.b. at port of shipment.

OVERSEA TRADE: AUSTRALIA.

(INCLUDING GOLD.)

Period.(a)	Value.(£'000.)			Excess of Exports(+) or Imports(–) (£'000.)	Value per Head of Population.(£)		
	Imports.	Exports.	Total.		Imports.	Exports.	Total.
1901 to 1905 ..	35,689	51,237	86,926	+ 15,548	9.1	13.1	22.2
1906 to 1910 ..	46,825 (b)	69,336	116,161	+ 22,511	11.0	16.3	27.3
1911 to 1915–16 ..	66,737	74,504	141,241	+ 7,767	13.8	15.4	29.2
1916–17 to 1920–21	91,577	115,066	206,643	+ 23,489	17.4	21.9	39.3
1921–22 to 1925–26	124,404	134,545	258,949	+ 10,141	21.1	22.9	44.0
1926–27 to 1930–31	119,337	131,382	250,719	+ 12,045	18.6	20.5	39.1
1931–32 to 1935–36	73,798	120,958	194,756	+ 47,160	11.1	18.1	29.2
1936–37 to 1940–41	123,553	157,610	281,163	+ 34,057	17.8	22.7	40.5
1941–42 to 1945–46	211,514	163,955	375,469	– 47,559	29.1	22.4	51.5
1946–47 to 1950–51	449,273	571,430	1,020,703	+ 122,157	57.2	72.7	129.9
1951–52.. ..	1,053,423	675,008	1,728,431	– 378,415	123.5	79.1	202.6
1952–53.. ..	514,109	871,272	1,385,381	+ 357,163	58.9	99.7	158.6
1953–54.. ..	681,609	828,332	1,509,941	+ 146,723	76.6	93.0	169.6
1954–55.. ..	843,742	774,164	1,617,906	– 69,578	92.8	85.2	178.0
1955–56.. ..	821,088	781,864	1,602,952	– 39,224	88.1	83.9	172.0
1956–57.. ..	718,991	992,906	1,711,897	+ 273,915	75.4	104.2	179.6
1957–58.. ..	791,940	817,946	1,609,886	+ 26,006	81.3	83.9	165.2
1958–59.. ..	796,599	811,463	1,608,062	+ 14,864	80.0	81.5	161.5
1959–60.. ..	926,393	937,682	1,864,075	+ 11,289	91.1	92.2	183.3

(a) The figures shown for the years 1901 to 1950–51 represent the annual averages for the periods covered. See text above. From 1914–15 onwards, the particulars relate to financial years. (b) Prior to 1906, ships' stores were included in exports. For the value of such goods shipped on overseas vessels and aircraft during each of the years 1955–56 to 1959–60, see table on p. 506.

In issues of the Official Year Book prior to No. 23, fluctuations in the value of the overseas trade of Australia for earlier years were treated in some detail. The enhanced prices ruling for commodities and the peculiar conditions affecting Australian trade were responsible for the high value of imports in the years following the 1914–18 War, and these factors should be taken into consideration in making comparisons with earlier years. In the three years ended 1928–29, imports fell while exports were well maintained, but in 1929–30 both imports and exports declined substantially. The full effects of the economic depression are reflected in the greatly diminished trade figures for the period 1931–32 to 1935–36 and some years thereafter. The lowest level was recorded in 1931–32, when the total trade fell to £160,719,000.

The outbreak of war in the Pacific in 1941 resulted in a substantial increase in the value of imports during the years 1941–42 to 1945–46. Since the end of the War, the annual values of imports and exports have increased considerably, largely because of higher prices.

A graph showing the overseas trade of Australia from 1934–35 to 1959–60 appears on page 479.

2. **Excluding Gold.**—The fluctuations in recent years in merchandise trade (including silver as merchandise) are shown more clearly in the following table, from which *all* gold movements have been excluded.

OVERSEA TRADE: AUSTRALIA.

(EXCLUDING GOLD.)

Year.	Value. (£'000.)			Value per Head of Population.(£)		
	Imports.	Exports.	Total.	Imports.	Exports.	Total.
1955-56.. ..	818,343	773,540	1,591,883	87.9	83.0	170.9
1956-57.. ..	716,720	978,679	1,695,399	75.2	102.6	177.8
1957-58.. ..	789,308	811,594	1,600,902	81.0	83.3	164.3
1958-59.. ..	794,422	808,184	1,602,606	79.8	81.2	161.0
1959-60.. ..	923,870	927,471	1,851,341	90.8	91.2	182.0

§ 8. Direction of Oversea Trade.

1. **According to Countries.**—(i) *Values.* The following table shows the value of Australian imports and exports during each of the years 1957-58 to 1959-60, according to country of origin or consignment respectively.

COUNTRIES OF ORIGIN OR CONSIGNMENT OF AUSTRALIAN IMPORTS AND EXPORTS.

(EXCLUDING GOLD.)

(£'000.)

Country.	Imports.			Exports.		
	1957-58.	1958-59.	1959-60.	1957-58.	1958-59.	1959-60.
<i>Commonwealth Countries—</i>						
United Kingdom	325,007	307,436	329,902	221,406	256,935	237,946
Australian Territories ..	8,717	10,420	11,226	16,661	16,698	18,236
Canada	23,046	23,173	29,653	14,133	16,460	13,905
Ceylon	8,772	10,457	11,238	5,939	5,899	7,711
India	23,416	21,005	18,180	11,689	10,080	16,219
Malaya, Federation of ..	10,708	11,482	17,828	11,420	13,167	12,681
New Zealand	12,372	12,219	15,319	55,402	49,603	54,273
Singapore	912	1,322	1,560	12,548	9,855	10,948
Other Commonwealth Countries	37,550	39,810	47,274	41,406	43,236	47,832
<i>Total, Commonwealth Countries</i>	<i>450,500</i>	<i>437,324</i>	<i>482,180</i>	<i>390,604</i>	<i>421,933</i>	<i>419,751</i>
<i>Foreign Countries—</i>						
Arabian States	29,289	29,467	36,490	2,614	2,852	2,597
Belgium-Luxembourg	6,543	6,731	8,470	28,111	23,571	24,296
France	10,333	11,724	13,743	69,841	46,661	60,325
Germany, Federal Republic of	41,516	42,954	53,869	33,128	28,905	38,333
Indonesia	28,089	31,475	29,438	4,051	2,137	3,221
Italy	10,768	9,720	13,011	46,344	32,244	46,574
Japan	23,815	29,949	41,533	102,717	102,311	134,674
Netherlands	11,073	12,978	18,682	5,622	8,468	5,856
Sweden	11,700	12,229	14,286	4,014	2,677	2,146
United States of America ..	104,453	108,503	149,631	45,366	60,725	75,927
Other Foreign Countries ..	60,659	60,806	61,738	73,554	70,216	107,959
<i>Total, Foreign Countries</i>	<i>338,238</i>	<i>356,536</i>	<i>440,891</i>	<i>415,362</i>	<i>380,767</i>	<i>501,908</i>
<i>Country unknown</i>	<i>570</i>	<i>562</i>	<i>799</i>	<i>5,628</i>	<i>5,484</i>	<i>5,812</i>
<i>Total</i>	<i>789,308</i>	<i>794,422</i>	<i>923,870</i>	<i>811,594</i>	<i>808,184</i>	<i>927,471</i>

(ii) *Proportions.* In view of the fluctuations in the total values of imports and exports, it is somewhat difficult to ascertain from the preceding table the relative importance of the various countries in the trade of Australia. A better idea of the proportions of imports supplied by the various countries and of their relative importance as markets for Australian exports during the years 1957-58 to 1959-60 may be obtained from the following table.

COUNTRIES OF ORIGIN OR CONSIGNMENT OF AUSTRALIAN IMPORTS AND EXPORTS: PROPORTIONS.

(EXCLUDING GOLD.)

(Per Cent. of Total.)

Country.	Imports.			Exports.		
	1957-58.	1958-59.	1959-60.	1957-58.	1958-59.	1959-60.
<i>Commonwealth Countries—</i>						
United Kingdom	41.18	38.70	35.70	27.28	31.79	25.65
Australian Territories ..	1.00	1.31	1.21	2.05	2.07	1.97
Canada	2.92	2.92	3.21	1.74	2.04	1.50
Ceylon	1.11	1.32	1.22	0.73	0.73	0.83
India	2.97	2.64	1.97	1.44	1.25	1.75
Malaya, Federation of ..	1.36	1.45	1.93	1.41	1.63	1.37
New Zealand	1.57	1.54	1.66	6.83	6.14	5.85
Singapore	0.11	0.17	0.17	1.55	1.22	1.18
Other Commonwealth Countries	4.86	5.00	5.12	5.10	5.34	5.16
<i>Total, Commonwealth Countries</i>	<i>57.08</i>	<i>55.05</i>	<i>52.19</i>	<i>48.13</i>	<i>52.21</i>	<i>45.26</i>
<i>Foreign Countries—</i>						
Arabian States	3.71	3.71	3.95	0.32	0.35	0.28
Belgium-Luxembourg ..	0.84	0.85	0.91	3.46	2.92	2.62
France	1.30	1.48	1.49	8.61	5.77	6.50
Germany, Federal Republic of	5.26	5.41	5.83	4.08	3.58	4.13
Indonesia	3.56	3.96	3.19	0.50	0.26	0.35
Italy	1.36	1.22	1.41	5.71	3.99	5.02
Japan	3.02	3.77	4.49	12.66	12.66	14.52
Netherlands	1.40	1.63	2.02	0.69	1.05	0.63
Sweden	1.48	1.54	1.55	0.49	0.33	0.23
United States of America ..	13.23	13.66	16.20	5.59	7.51	8.19
Other Foreign Countries ..	7.69	7.65	6.68	9.07	8.69	11.64
<i>Total, Foreign Countries</i>	<i>42.85</i>	<i>44.88</i>	<i>47.72</i>	<i>51.18</i>	<i>47.11</i>	<i>54.11</i>
<i>Country unknown</i>	<i>0.07</i>	<i>0.07</i>	<i>0.09</i>	<i>0.69</i>	<i>0.68</i>	<i>0.63</i>
Total	100.00	100.00	100.00	100.00	100.00	100.00

2. *According to Monetary Groups.*—The following table shows the trade of Australia according to monetary groups during the years 1958-59 and 1959-60.

The sterling group includes the United Kingdom, its colonies and dependencies, all other countries of the British Commonwealth (except Canada and the New Hebrides Condominium) and certain non-British countries of which the most important are Burma, Bahrain Islands, other Arabian States (excluding Saudi Arabia and Yemen), and Iceland.

The dollar group comprises the United States of America and dependencies, Canada, Mexico, other Central American countries, Bolivia, Colombia, Ecuador, Venezuela, the Philippines and Liberia.

The E.E.C. (European Economic Community) group consists of Belgium-Luxembourg, France, Italy and the Netherlands together with their associated states and dependencies, and the Federated Republic of Germany. Prior to 1958-59 this group was included in the O.E.E.C. group.

The O.E.E.C. group in the following table comprises non-sterling members of the Organization for European Economic Co-operation, namely Norway and Portugal and their dependencies, Austria, Denmark, Greece, Spain, Sweden, Switzerland and Turkey.

Of the remaining countries grouped under "other non-sterling", the more important as regards trade with Australia are Czechoslovakia, Finland, Poland, the Union of Soviet Socialist Republics, Egypt, Iran, Saudi Arabia, Japan, Indonesia, Thailand, Brazil and Chile.

OVERSEA TRADE OF AUSTRALIA ACCORDING TO MONETARY GROUPS.
(INCLUDING GOLD.)
(£'000.)

Monetary Group.	1958-59.	1959-60.
STERLING.		
Imports—		
From—United Kingdom	307,437	329,902
Other Countries	134,025	155,580
Total	441,462	485,482
Exports—		
To—United Kingdom	256,935	247,321
Other Countries	155,267	177,858
Total	412,202	425,179
Excess of Exports (+) or Imports (—)	-29,260	-60,303
DOLLAR.		
Imports—		
From—United States of America(a)	108,506	149,631
Canada	23,173	29,653
Other Countries	4,644	4,349
Total	136,323	183,633
Exports—		
To—United States of America(a)	61,832	75,929
Canada	16,460	13,905
Other Countries	9,374	9,418
Total	87,666	99,252
Excess of Exports (+) or Imports (—)	-48,657	-84,381
OTHER NON-STERLING.		
Imports—		
From—European Economic Community	85,613	109,515
Organization for European Economic Co-operation(b)	32,498	39,258
Other Countries	100,703	108,505
Total	218,814	257,278
Exports—		
To—European Economic Community	145,082	179,329
Organization for European Economic Co-operation(b)	12,013	13,522
Other Countries	154,500	220,400
Total	311,595	413,251
Excess of Exports (+) or Imports (—)	+92,781	+155,973
ALL MONETARY GROUPS.		
Total Imports	796,599	926,393
Total Exports	811,463	937,682
Excess of Exports (+) or Imports (—)	+14,864	+11,289

(a) Includes Alaska and Hawaiian Islands.

(b) Excludes those member countries in E.E.C. group above.

A graph showing the overseas trade of Australia according to monetary groups for the years 1954-55 to 1959-60 will be found on page 480.

§ 9. Trade with the United Kingdom.

1. **Statistical Classes.**—The following table shows, according to statistical classes, the value of imports into Australia of United Kingdom origin and of exports from Australia to the United Kingdom during each of the years 1957-58 to 1959-60.

TRADE WITH THE UNITED KINGDOM: CLASSES.
(£'000.)

Class.	Imports.			Exports.		
	1957-58.	1958-59.	1959-60.	1957-58.	1958-59.	1959-60.
I. Foodstuffs of animal origin, etc.	1,443	1,276	1,812	55,718	88,027	70,195
II. Foodstuffs of vegetable origin; non-alcoholic beverages, etc.	649	794	700	55,023	63,578	57,844
III. Alcoholic liquors, etc.	1,796	1,932	2,900	616	746	811
IV. Tobacco, etc.	453	395	454	104	1	..
V. Live animals and birds	204	175	103	18	18	77
VI. Animal substances, etc.	388	565	925	82,105	75,303	78,697
VII. Vegetable substances, etc.	1,660	1,663	1,607	116	110	137
VIII. Apparel, textiles, etc.	46,973	36,947	37,652	217	259	399
IX. Oils, fats and waxes	1,054	1,745	2,034	2,077	1,774	1,077
X. Pigments, paints and varnishes	4,326	3,876	3,545	3	15	13
XI. Rocks, minerals, etc.	538	687	739	3,932	3,192	3,655
XII. Metals, metal manufactures and machinery	176,870	168,120	187,139	14,364	16,182	15,770
XIII. Rubber and leather, etc.	2,945	2,715	3,471	2,309	2,520	3,098
XIV. Wood and wicker, etc.	354	367	361	687	440	898
XV. Earthenware, etc.	7,289	7,599	8,365	6	20	21
XVI. Paper and stationery	21,573	21,680	20,137	543	307	312
XVII. Jewellery, etc.	2,560	2,736	3,109	74	90	195
XVIII. Optical, surgical and scientific instruments	5,517	5,618	5,748	331	360	553
XIX. Chemicals, medicinal products, essential oils, fertilizers	18,515	18,954	20,790	333	484	404
XX. Miscellaneous	(a)29,899	(a)29,591	(a)28,310	1,624	2,200	2,453
XXI. Gold and silver; bronze specie	1	2	1	1,221	1,309	10,712
Total	325,007	307,437	329,902	221,421	256,935	247,321

(a) Includes outside packages.

2. Imports of Principal Articles.—The following table shows the value of the principal articles imported into Australia from the United Kingdom during each of the years 1957-58 to 1959-60.

IMPORTS OF PRINCIPAL ARTICLES OF UNITED KINGDOM ORIGIN:
AUSTRALIA.
(£'000.)

Article.	1957-58.	1958-59.	1959-60.	Article.	1957-58.	1958-59.	1959-60.
Arms and ammunition, military, naval and air force stores	4,412	4,643	4,615	Optical, surgical and scientific instruments	3,803	3,953	4,166
Aluminium—				Paper, printing	6,801	6,597	4,628
Plates, sheets, strips	1,082	868	1,681	Piece-goods—			
Leaf and foil	1,520	1,388	1,870	Cotton and linen	13,202	9,325	7,701
Apparel	4,526	3,981	4,290	Silk and rayon(a)	2,564	1,998	1,751
Books, magazines, etc.	7,206	7,708	7,426	All other piece-goods	4,529	4,230	5,041
Carpets	4,005	3,885	4,670	Plastics materials	6,356	4,717	5,796
Chemicals, medicinal products, essential oils and fertilizers	18,515	18,954	20,790	Rubber and rubber manufactures	2,412	2,047	2,690
Crockery	2,434	2,650	2,119	Sewing and other cottons, threads, etc.	2,218	2,263	2,237
Electrical machinery and appliances	23,683	21,161	24,854	Stationery and paper manufactures	9,952	10,264	9,810
Glass and glassware	3,130	3,193	3,887	Tools of trade	2,276	2,073	2,292
Iron and steel—				Vehicles, parts and accessories	44,342	44,860	54,841
Plate and sheet	10,415	8,912	5,459	Vessels (ships) including parts	1,892	5,668	2,255
Other	5,374	4,910	7,072	Whisky	1,658	1,789	2,703
Linoleums	2,319	2,196	2,418	Yarns—			
Machines and machinery (except dynamo electrical)—				Cotton	3,676	2,867	3,054
Agricultural	1,444	1,780	1,531	Rayon	6,900	3,634	3,470
Metal-working	5,718	5,851	7,683	Other	481	339	595
Motive-power	24,043	19,981	25,507	All other articles(b)	57,587	55,517	56,334
Other	34,532	33,235	34,666	Total Imports	325,007	307,437	329,902

(a) Includes tyre cord fabric.

(b) Includes outside packages.

3. **Exports of Principal Articles of Australian Produce.**—The following table shows the quantities and values of the principal articles of Australian produce exported to the United Kingdom during each of the years 1957–58 to 1959–60.

PRINCIPAL ARTICLES EXPORTED TO THE UNITED KINGDOM: AUSTRALIA.
(Australian Produce.)

Article.	Unit of Quantity.	Quantity.			Value. (£'000.)		
		1957–58.	1958–59.	1959–60.	1957–58.	1958–59.	1959–60.
Butter	ton.	41,509	69,119	59,419	12,271	22,105	21,749
Cheese	"	5,793	11,570	15,274	750	3,519	3,634
Eggs .. .. .	"	..	..	..	2,563	1,069	2,023
Fruit, dried	ton	36,309	39,760	26,731	5,795	7,002	4,601
" fresh	'000 bus.	4,904	4,364	4,007	7,975	5,973	5,189
" preserved in airtight containers	ton	67,965	77,594	78,871	11,334	11,543	11,028
Gold	'000 fine oz.	1	..	600	15	..	9,375
Grains and cereals—							
Barley	ton	54,517	84,173	104,985	1,090	2,123	2,205
Flour (wheaten), plain white	ton(a)	43,156	45,548	46,194	1,280	1,316	1,234
Wheat	ton	262,284	568,551	562,106	6,980	14,708	13,919
Other .. .. .	"	..	..	..	1,038	3,642	2,316
Hides and skins .. ..	"	..	..	..	2,311	1,957	2,550
Lead bullion	ton	48,546	59,691	49,265	5,582	6,218	5,260
" pig	"	58,274	70,112	63,694	5,634	5,852	5,436
Leather .. .. .	"	..	..	..	2,269	2,497	3,061
Meats preserved by cold process—							
Beef and veal	ton	96,600	152,918	81,650	15,084	30,915	20,192
Lamb	"	24,664	33,941	18,876	5,144	6,686	2,741
Mutton	"	11,024	13,099	9,382	1,166	1,776	1,158
Rabbit and hare .. ..	"	..	..	..	2,262	2,583	2,492
Meats, tinned	ton	45,785	41,107	34,734	11,421	10,769	9,297
Milk and cream	'000 lb.	9,769	50,256	42,004	460	1,894	1,863
Silver bullion	'000 fine oz.	3,037	3,300	3,266	1,201	1,300	1,333
Sugar (cane)	ton	358,487	346,268	365,486	17,850	15,364	15,586
Tallow, inedible	"	4,485	6,793	8,118	353	524	482
Timber, undressed(b)	'000 super ft.	3,087	1,465	2,685	188	101	189
Wine, fermented	'000 gal.	1,106	1,333	1,313	602	723	796
Wool	'000 lb.	271,653	331,125	291,602	79,583	73,082	75,947
Zinc bars, etc.	ton	3,801	7,651	8,947	307	684	977
All other articles .. ..	"	..	..	..	16,865	17,503	17,029
Total Exports (Australian Produce) ..	..	..	..	..	219,373	253,428	243,662

(a) 2,000 lb.

(b) Excludes railway sleepers.

4. **Imports from the United Kingdom and Competing Countries.**—Since 1908, permanent resident Commissioners appointed by the British Board of Trade have been located in Australia for the purpose of advising manufacturers and merchants in the United Kingdom with regard to Australian trade affairs. From 8th August, 1907, the Commonwealth Customs Tariffs have provided preferential rates of customs duties on certain goods the produce or manufacture of the United Kingdom, with the object of assisting the British manufacturer to retain or improve his position in this market in relation to other countries. The main provisions in these Acts relating to preference are dealt with on previous pages in this chapter.

In an investigation into the relative position occupied by the United Kingdom in the import trade of Australia, the comparison must, of course, be restricted to those classes of goods which are produced or manufactured in the United Kingdom. Imports into Australia include many commodities, such as tea, rice, raw coffee, unmanufactured tobacco, petroleum products, copra, timber, etc., which the United Kingdom cannot supply. These items, in addition to others not available from that country, have therefore been omitted from the following table.

The imports into Australia have been classified under nine headings, and the trade of the United Kingdom therein is compared with that of France, the Federal Republic of Germany, Japan, and the United States of America. These countries have been selected as the principal competitors in normal times with the United Kingdom for the trade of Australia under the specified headings. Totals for each of the years 1957–58 to 1959–60 are shown in the following table.

IMPORTS FROM THE UNITED KINGDOM AND ITS MAIN COMPETITORS.

(£'000.)

Nature of Imports.	Year.	United Kingdom.	France.	Federal Republic of Germany.	Japan.	United States of America.	All Countries.
Foodstuffs of animal origin	1957-58	1,442	5	180	1,368	934	8,395
	1958-59	1,276	..	189	1,552	594	7,834
	1959-60	1,812	2	288	1,709	675	10,107
Yarns and manufactured fibres, textiles and apparel	1957-58	46,973	3,191	4,909	15,722	771	108,499
	1958-59	36,947	2,294	3,980	18,423	799	96,973
	1959-60	37,652	2,382	4,577	23,230	6,206	111,073
Metals, metal manufactures and machinery	1957-58	176,870	3,524	20,832	1,284	51,208	282,404
	1958-59	168,120	5,579	23,204	2,387	58,815	292,937
	1959-60	187,139	6,976	29,987	5,513	78,201	355,349
Rubber and leather and manufactures thereof, and substitutes therefor	1957-58	2,945	226	144	28	4,119	17,406
	1958-59	2,714	305	134	..	3,892	17,677
	1959-60	3,471	323	196	113	5,300	25,462
Earthenware, cement, china, glass and stoneware	1957-58	7,289	372	642	1,331	811	13,347
	1958-59	7,599	576	695	1,686	1,064	14,360
	1959-60	8,365	558	795	2,166	1,270	16,656
Pulp, paper and board; paper manufactures and stationery	1957-58	21,574	77	818	268	2,101	45,089
	1958-59	21,680	143	925	449	2,815	48,219
	1959-60	20,137	261	1,090	696	4,859	55,046
Sporting material, toys, fancy goods, jewellery and time-pieces	1957-58	2,560	138	1,555	988	28	8,459
	1958-59	2,736	126	1,293	1,477	17	8,726
	1959-60	3,109	139	1,294	2,090	375	10,832
Optical, surgical and scientific instruments, etc.; photographic goods, n.e.i.	1957-58	5,517	97	2,133	601	2,228	12,134
	1958-59	5,618	97	1,898	728	2,563	12,305
	1959-60	5,748	117	2,967	1,594	3,547	15,613
Chemicals, medicinal and pharmaceutical products, essential oils and fertilizers	1957-58	18,515	1,244	4,506	728	3,516	37,549
	1958-59	18,954	1,127	5,103	826	4,596	39,855
	1959-60	20,790	1,307	5,815	855	7,974	47,824
Total, competitive imports	1957-58	283,685	8,874	35,719	22,318	65,716	533,282
	1958-59	265,644	10,247	37,421	27,528	75,155	538,886
	1959-60	288,223	12,065	47,009	37,966	108,407	647,962
Total imports (less bullion and specie) (a)	1957-58	325,006	10,332	41,516	23,815	104,453	789,261
	1958-59	307,435	11,724	42,954	29,949	108,503	794,388
	1959-60	329,901	13,742	53,868	41,533	149,631	923,830

(a) Includes outside packages.

The principal classes of competitive imports are metals, metal manufactures and machinery (value £355,349,000 in 1959-60) and manufactured fibres, textiles and apparel (value £111,073,000 in 1959-60). The value of goods included in these two groups represented 72.0 per cent. of the total value of competitive commodities during 1959-60. In 1959-60, the United Kingdom supplied 44.5 per cent. of the total value of competitive goods.

§ 10. Trade with Eastern Countries.

1. Merchandise Trade According to Countries.—The values of imports from and exports to Eastern countries during the years 1957-58 to 1959-60 are shown in the following table. The principal commodities imported in 1959-60 according to countries of origin were:—Borneo (British)—petroleum, £12,727,000, timber, hardwood, £2,633,000; Ceylon—tea, £9,807,000; India—bags and sacks, £4,682,000, cotton and linen piece-goods, £4,471,000,

hessian, £2,366,000, and tea, £1,415,000; Malaya—crude rubber, £10,124,000, latex, £2,351,000, timber, £2,135,000, and tin, £1,517,000; Japan—metals and metal manufactures, £3,474,000, cotton and linen piece-goods, £16,741,000, other textiles, £4,479,000, earthenware, china, glass, etc., £2,166,000, optical, etc., instruments, £1,594,000, and tinned fish, £1,513,000; Indonesia—petroleum spirit, £6,375,000, kerosene, £2,570,000, crude petroleum, £15,669,000, residual, solar and other mineral oils, £1,581,000, and tea, £1,661,000.

MERCHANDISE TRADE WITH EASTERN COUNTRIES: AUSTRALIA.

(£'000.)

Country.	Imports.(a)			Exports.		
	1957-58.	1958-59.	1959-60.	1957-58.	1958-59.	1959-60.
<i>Commonwealth Countries—</i>						
Borneo (British)	13,222	13,000	15,830	1,009	996	1,350
Ceylon	8,772	10,457	11,238	5,939	5,832	7,711
Hong Kong	3,345	3,959	5,161	6,344	8,675	8,518
India	23,416	21,005	18,180	11,689	10,080	16,219
Malaya, Federation of ..	10,708	11,482	17,828	11,420	13,167	12,681
Pakistan	799	2,094	3,380	5,170	1,532	5,027
Singapore	912	1,322	1,560	12,548	9,855	10,948
<i>Foreign Countries—</i>						
Burma	16	51	9	1,525	1,448	1,888
Cambodia	1	5	2	38	29	400
China, Republic of—						
Formosa	63	49	108	503	1,070	1,353
Mainland	3,114	3,574	4,419	9,768	13,567	16,132
Indonesia	28,089	31,475	29,438	4,051	2,137	3,221
Japan	23,815	29,949	41,533	102,717	102,311	134,674
Korea, North	3	..	1	..	30	309
Korea, Republic of ..	1	3	1	1,557	2,963	3,992
Laos .. ..	..	..	1	15	5	4
Nepal .. ..	..	3	1	..	..	2
Philippines	176	153	269	4,873	4,157	4,918
Portuguese Dependencies—						
India (Portuguese) ..	..	..	..	139	170	185
Macao	35	1	3	3	1	10
Timor	17	18	..	220	49	82
Thailand	198	207	421	1,627	1,783	2,378
Viet-Nam, North .. ..	..	..	..	128	37	21
Viet-Nam, South	4	1	1	102	454	260
Total	116,706	128,808	149,384	181,385	180,348	232,283

(a) Includes outside packages.

The balance of trade with Eastern countries shows an excess of exports from Australia during each of the years 1957-58 to 1959-60.

2. Exports of Principal Articles.—The following table shows the value of exports (including re-exports) from Australia to Eastern countries for each of the years 1957-58 to 1959-60. The countries concerned in this trade are listed in the previous table.

TOTAL EXPORTS FROM AUSTRALIA TO EASTERN COUNTRIES.

(£'000.)

Article.	1957-58.	1958-59.	1959-60.	Article.	1957-58.	1958-59.	1959-60.
Animal (except marine) oils and fats	2,470	2,558	2,959	Meats	4,309	2,998	3,944
Army stores	1,021	2,265	580	Metals and metal manufactures except zinc bars, etc. ..	14,391	15,468	16,634
Butter	1,688	1,634	1,829	Milk and cream	6,024	5,992	6,131
Cheese	397	397	664	Sugar (raw)	7,209	6,264	3,401
Fruit, fresh or preserved ..	1,293	1,399	1,397	Wool	88,749	83,025	118,064
Grains and cereals—				Zinc bars, blocks, etc. ..	2,153	2,710	2,191
Flour (wheaten), plain white ..	7,147	8,347	10,429	Other merchandise	21,934	24,344	33,087
Wheat	10,577	9,482	22,751				
Other (prepared and unprepared)	5,782	8,336	2,440	Total Merchandise ..	181,385	180,348	232,283
Infants' and invalids' foods ..	2,115	1,918	1,937	Gold and silver; bronze specie	6,231	3,291	756
Leather	798	841	854				
Machines and machinery	3,328	2,370	2,991	Total Exports	187,616	183,639	233,039

§ 11. Oversea Trade at Principal Ports.

The following table shows the value of overseas imports and exports at the principal ports of Australia during the year 1959-60, and the totals for each State and Territory.

OVERSEA TRADE AT PRINCIPAL PORTS, 1959-60.
(£'000.)

Port.	Imports.	Exports.	Port.	Imports.	Exports.
NEW SOUTH WALES.			SOUTH AUSTRALIA.		
Sydney, including Botany			Port Adelaide, including		
Bay	400,681	227,020	Adelaide	57,520	62,593
Newcastle, including Port			Port Pirie	1,379	17,025
Stephens	8,248	41,814	Port Lincoln	417	6,417
Port Kembla	5,717	12,161	Wallerawang	176	1,821
Other		170	Other	255	2,970
Total	414,646	281,165	Total	59,747	90,826
VICTORIA.			WESTERN AUSTRALIA.		
Melbourne	306,170	225,311	Fremantle, including Perth		
Geelong	31,837	15,641	and Kwinana	44,890	92,891
Portland	1,342	3,118	Geraldton	286	6,087
Total	339,349	244,070	Bunbury	630	5,730
QUEENSLAND.			Albany	341	8,599
Brisbane	47,730	116,645	Other	35	2,576
Townsville	1,559	29,605	Total	46,182	115,883
Mackay	81	10,155	TASMANIA.		
Cairns	767	10,908	Hobart	8,085	13,193
Bowen	1	1,885	Launceston	2,353	3,587
Rockhampton	232	5,439	Burnie	729	1,124
Gladstone	460	4,495	Devonport	2,864	5,961
Maryborough	24	2,136	Total	14,031	23,865
Other	4	54	NORTHERN TERRITORY.		
Total	50,858	181,322	Darwin	1,485	551
			AUSTRALIAN CAPITAL TERRITORY.		
			Canberra	95	
			Grand Total	926,393	937,682

§ 12. Classified Summary of Australian Oversea Trade.

1. Statistical Classes.—(i) *Imports and Exports.* The following table shows, according to statistical classes, the value of Australian imports and exports during each of the years 1957-58 to 1959-60.

TOTAL OVERSEA TRADE, AUSTRALIA: CLASSES.
(£'000.)

Class.	Imports.			Exports.		
	1957-58.	1958-59.	1959-60.	1957-58.	1958-59.	1959-60.
I. Foodstuffs of animal origin, etc.	8,395	7,834	10,107	92,007	146,568	143,790
II. Foodstuffs of vegetable origin; non-alcoholic beverages, etc.	26,560	27,841	27,478	133,102	155,693	164,566
III. Alcoholic liquors, etc. ..	2,125	2,292	3,343	1,891	2,083	2,176
IV. Tobacco, etc. ..	15,453	14,510	13,778	707	461	354
V. Live animals and birds ..	721	551	636	1,843	1,242	2,036
VI. Animal substances, etc. ..	4,212	3,866	5,281	400,605	327,152	419,177
VII. Vegetable substances, etc. ..	19,424	19,809	20,235	1,076	993	1,130
VIII. Apparel, textiles, etc. ..	108,499	96,973	111,073	2,718	2,449	3,080
IX. Oils, fats and waxes ..	101,722	104,479	106,860	22,846	22,586	24,542
X. Pigments, paints and varnishes	7,595	6,766	6,574	897	912	1,089
XI. Rocks, minerals, etc. ..	7,320	7,165	7,770	28,099	21,252	29,059
XII. Metals, metal manufactures and machinery ..	282,404	292,937	355,349	81,606	81,606	87,227
XIII. Rubber and leather, etc. ..	17,406	17,677	25,462	4,385	4,596	5,403
XIV. Wood and wicker, etc. ..	16,737	15,482	20,689	4,535	4,350	3,878
XV. Earthenware, etc. ..	13,347	14,360	16,656	1,105	959	878
XVI. Paper and stationery ..	45,089	48,219	55,046	2,985	2,678	3,205
XVII. Jewellery, etc. ..	8,459	8,726	10,832	747	905	1,512
XVIII. Optical, surgical and scientific instruments ..	12,134	12,305	15,613	1,630	1,772	2,356
XIX. Chemicals, medicinal products, essential oils, fertilizers ..	37,549	39,855	47,824	6,517	7,468	7,645
XX. Miscellaneous ..	(a)54,110	(a)63,224	(a)63,224	21,002	20,980	22,858
XXI. Gold and silver; bronze specie	2,679	2,211	2,563	7,643	4,758	11,723
Total	791,940	796,599	926,393	817,946	811,463	937,682

(a) Includes outside packages.

(ii) *Exports—Australian Produce and Re-exports.* In the following table, the exports from Australia of (a) Australian produce and (b) re-exports are shown according to statistical classes for each of the years 1957–58 to 1959–60.

EXPORTS FROM AUSTRALIA: AUSTRALIAN PRODUCE AND RE-EXPORTS.
(£'000.)

Class.	Australian Produce.			Re-exports.		
	1957–58.	1958–59.	1959–60.	1957–58.	1958–59.	1959–60.
I. Foodstuffs of animal origin, etc.	91,976	146,526	143,720	31	42	70
II. Foodstuffs of vegetable origin; non-alcoholic beverages, etc.	132,677	155,211	164,002	425	482	564
III. Alcoholic liquors, etc.	1,884	2,071	2,168	7	12	8
IV. Tobacco, etc.	509	355	284	198	106	70
V. Live animals and birds	1,694	1,180	1,886	149	62	150
VI. Animal substances, etc.	400,534	327,001	419,100	71	151	77
VII. Vegetable substances, etc.	1,055	975	1,100	21	18	30
VIII. Apparel, textiles, etc.	2,480	2,234	2,759	238	215	321
IX. Oils, fats and waxes	22,157	21,070	22,718	689	1,516	1,824
X. Pigments, paints and varnishes	868	876	1,028	29	36	61
XI. Rocks, minerals, etc.	28,022	21,110	28,948	77	142	111
XII. Metals, metal manufactures and machinery	76,774	76,266	81,831	4,832	5,340	5,396
XIII. Rubber and leather, etc.	4,345	4,557	5,353	40	39	50
XIV. Wood and wicker, etc.	4,453	4,268	3,753	82	82	123
XV. Earthenware, etc.	1,083	918	833	22	41	45
XVI. Paper and stationery	2,828	2,511	2,979	157	167	226
XVII. Jewellery, etc.	651	777	1,290	96	128	222
XVIII. Optical, surgical and scientific instruments	1,450	1,450	1,895	180	322	461
XIX. Chemicals, medicinal products, essential oils, fertilizers	6,251	7,126	7,316	266	342	329
XX. Miscellaneous	13,836	13,683	15,009	7,166	7,297	7,849
XXI. Gold and silver; bronze specie	7,626	4,744	11,716	17	14	7
Total	803,153	794,909	919,688	14,793	16,554	17,994

2. *Imports of Principal Articles.*—The next table shows the quantity, where available, and the value of the principal articles imported into Australia during each of the years 1957–58 to 1959–60.

PRINCIPAL ARTICLES IMPORTED: AUSTRALIA.

Article.	Unit of Quantity.	Quantity.			Value. (£'000.)		
		1957–58.	1958–59.	1959–60.	1957–58.	1958–59.	1959–60.
Aircraft and parts	10,893	17,309	20,733
Aluminium Manufactures	cwt.	266,056	372,486	598,977	3,864	4,713	7,717
Leaf and foil	'000 lb.	5,496	5,724	7,520	1,769	1,704	2,176
Apparel—
Blouses, skirts, costumes, etc.	733	906	1,133
Gloves	doz. prs.	484,196	431,704	513,312	1,327	1,092	1,175
Headwear	846	716	850
Men's and boys' outer clothing	467	411	541
Socks and stockings	377	338	552
Trimmings and ornaments	4,371	3,731	4,718
Other apparel and attire	2,187	1,985	2,256
Arms, explosives, military stores, etc.	5,446	5,645	9,371
Bags and sacks	8,191	8,204	6,973
Carpets and carpeting	5,076	4,732	5,734
Chemicals, drugs, fertilizers	37,549	39,855	47,824
Cotton, raw	'000 lb.	42,578	43,984	41,519	5,954	5,354	5,172
Crockery, etc.	3,546	3,873	3,604
Electrical machinery and appliances	36,410	35,797	43,258
Fibres	12,582	13,078	12,868
Glass and glassware	6,198	6,470	8,515
Iron and steel—
Pipes, tubes and fittings	cwt.	362,722	310,473	503,518	2,108	1,777	2,459
Plate and sheet	..	2,109,090	1,825,442	1,987,545	12,366	11,204	9,311
Other	8,004	8,677	12,210
Machines and machinery (except dynamo electrical)—
Agricultural	2,766	3,326	3,553
Metal-working	11,119	11,735	14,884
Motive Power—
Diesel engines	2,523	3,054	3,452
Steam engines, turbines and parts	1,950	1,743	4,237
Tractors and parts	20,963	16,356	22,512
Other	14,279	13,604	17,440
Other	59,742	64,913	72,677

PRINCIPAL ARTICLES IMPORTED: AUSTRALIA—*continued*.

Article.	Unit of Quantity.	Quantity.			Value. (£'000.)		
		1957-58.	1958-59.	1959-60.	1957-58.	1958-59.	1959-60.
Motor vehicles, chassis, bodies and parts .. .. .	..	..	..	..	59,227	66,579	82,994
Oils—	..	..	..	..	..	..	..
Linseed	'000 gal.	2,797	2,537	1,425	1,617	1,482	778
Petroleum and shale—	..	..	..	..	..	..	..
Crude (a)	mill. gal.	2,421	2,531	2,794	68,521	69,911	72,979
Kerosene	'000 gal.	104,508	97,676	105,849	5,625	5,352	5,766
Lubricating (mineral) .. .. .	..	39,447	46,698	48,619	5,643	6,244	6,544
Petroleum and shale spirit .. .. .	..	179,030	234,360	205,692	11,004	13,743	12,075
Residual and solar .. .. .	..	28,442	16,365	23,807	1,472	846	1,096
Paper, printing .. .. .	..	..	..	..	16,762	17,139	19,339
Piece-goods—	..	..	..	..	..	..	..
Canvas and duck	'000 sq. yds.	7,021	7,153	8,404	951	915	1,015
Cotton and linen .. .. .	..	..	..	..	41,992	39,070	43,589
Silk and man-made fibre-yarn .. .. .	..	..	..	..	8,657	7,617	8,755
Woolen and containing wool .. .. .	..	..	..	..	1,482	1,305	1,725
All other piece-goods .. .. .	..	..	..	..	7,806	7,890	10,007
Plastic materials .. .. .	..	..	..	..	9,510	8,603	11,830
Rubber and rubber manufactures .. .. .	..	..	..	..	16,636	16,783	24,248
Stationery and paper manufactures .. .. .	..	..	..	..	12,922	13,929	14,725
Tea	'000 lb.	55,762	62,423	62,515	12,132	15,085	13,372
Timber, undressed, including logs(b)	'000 sup. ft.	304,814	307,311	376,612	12,748	11,964	17,077
Tobacco	'000 lb.	43,432	39,046	24,140	14,884	13,943	12,607
Yarns—	..	..	..	..	..	..	..
Cotton .. .. .	..	8,038	6,843	7,907	3,703	2,935	3,233
Man-made fibres .. .. .	..	18,394	12,521	18,098	10,260	5,539	7,535
Woolen .. .. .	..	147	124	375	203	135	379
Other .. .. .	..	1,322	1,867	1,718	563	483	436
All other articles .. .. .	..	..	..	..	184,014	176,805	206,384
Total Imports .. .. .	..	..	..	..	791,940	796,599	926,393

(a) Includes once-run distillate.
super. feet.

(b) Excludes dunnage and undressed timber not measured in

3. Exports of Principal Articles of Australian Produce.—The following table shows the quantities and values of the principal articles of Australian produce exported during each of the years 1957-58 to 1959-60.

EXPORTS OF PRINCIPAL ARTICLES OF AUSTRALIAN PRODUCE.

Article.	Unit of Quantity.	Quantity.			Value. (£'000.)		
		1957-58.	1958-59.	1959-60.	1957-58.	1958-59.	1959-60.
Butter	ton	50,794	77,316	76,969	15,639	24,956	28,646
Cheese .. .. .	..	9,230	14,411	18,479	1,854	4,467	4,989
Chemicals, drugs, fertilizers .. .. .	..	..	..	..	6,251	7,125	7,316
Coal	ton	836,336	645,249	1,087,844	3,391	2,676	4,327
Copper .. .. .	..	18,655	27,490	21,203	3,996	7,011	6,131
Fruit—	..	..	..	..	..	..	..
Dried .. .. .	..	60,299	77,309	52,945	9,142	12,743	9,065
Fresh, including frozen	'000 bus.	7,992	6,559	6,892	13,060	9,413	9,294
Preserved in airtight containers	ton	73,732	87,511	89,231	12,357	12,950	12,381
Gold .. .. .	..	..	..	..	6,353	3,279	10,211
Grains and cereals—	..	..	..	..	..	..	..
Barley	ton	430,017	667,945	558,319	9,474	16,898	11,541
Flour (wheaten), plain white	ton(a)	459,677	447,198	535,958	14,349	13,331	15,143
Wheat	ton	1,060,055	1,463,337	2,444,251	28,493	38,381	61,680
Other .. .. .	..	..	..	..	6,353	13,985	12,710
Hides and skins .. .. .	..	..	..	..	25,353	23,525	32,759
Iron and steel .. .. .	..	..	..	..	17,560	18,459	23,211
Lead, pig	ton	164,061	143,828	121,420	15,820	12,561	10,878
Lead, bullion .. .. .	..	48,546	59,691	49,265	5,582	6,218	5,260
Machines and machinery (except dynamo electrical) .. .. .	..	..	..	..	9,635	6,915	8,682
Meats preserved by cold process—	..	..	..	..	..	..	..
Beef and veal	ton	125,895	227,822	186,897	21,571	55,485	55,138
Lamb .. .. .	..	28,729	40,711	26,457	6,132	8,151	4,389
Mutton .. .. .	..	18,870	33,326	32,037	2,253	5,851	4,719
Other .. .. .	..	..	..	..	7,322	9,693	8,237
Meats, tinned	ton	58,854	56,719	48,058	15,100	15,434	13,319
Milk and cream	'000 lb.	111,578	137,768	144,792	9,303	10,238	10,942
Ores and concentrates	ton	670,230	630,679	763,760	21,737	16,948	22,358
Petroleum and shale oils	'000 gal.	302,592	286,751	298,016	15,385	14,702	15,914
Sugar (cane)	ton	707,804	802,971	701,319	34,996	32,163	26,671
Wool (b)	'000 lb.	1,197,446	1,314,229	1,523,509	373,397	302,212	386,142
All other articles .. .. .	..	..	..	..	91,295	89,139	97,635
Total Exports (Australian Produce) .. .. .	..	..	..	..	803,153	794,909	919,688

(a) 2,000 lb.

(b) Quantity in terms of greasy wool.

A graph showing exports in principal commodity groups in each of the years 1954-55 to 1959-60 will be found on page 481.

4. Imports of Merchandise and Bullion and Specie.—The table hereunder shows the value of imports into Australia during each of the years 1955-56 to 1959-60, grouped under the headings—Merchandise, and Bullion and Specie. The imports of merchandise are shown under the sub-headings of "free" and "dutiable" goods.

IMPORTS OF MERCHANDISE AND BULLION AND SPECIE: AUSTRALIA.

(£'000.)

Year.	Merchandise.			Bullion and Specie.	Total Imports.
	Free Goods.	Dutiable Goods.	Total.		
1955-56.. ..	421,208	397,085	818,293	2,795	821,088
1956-57.. ..	403,496	313,186	716,682	2,309	718,991
1957-58.. ..	426,206	363,055	789,261	2,679	791,940
1958-59.. ..	464,274	330,114	794,388	2,211	796,599
1959-60.. ..	509,824	414,006	923,830	2,563	926,393

5. Exports of Merchandise and Bullion and Specie.—The next table shows the value of exports from Australia during each of the years 1955-56 to 1959-60, grouped under the headings—Merchandise, and Bullion and Specie. The exports of Australian produce and re-exports are shown separately.

EXPORTS OF MERCHANDISE AND BULLION AND SPECIE: AUSTRALIA.

(£'000.)

Year.	Merchandise.			Bullion and Specie.			Total Exports.
	Australian Produce.	Re-exports.	Total.	Australian Produce.	Re-exports.	Total.	
1955-56 ..	757,100	13,737	770,837	10,990	37	11,027	781,864
1956-57 ..	959,348	13,650	972,998	19,896	12	19,908	992,906
1957-58 ..	795,527	14,776	810,303	7,626	17	7,643	817,946
1958-59 ..	790,165	16,540	806,705	4,744	14	4,758	811,463
1959-60 ..	907,971	17,988	925,959	11,716	7	11,723	937,682

6. Imports and Net Customs Revenue.—The percentage of net customs revenue, excluding net primage, collected to the total value of all merchandise imported in each of the years 1955-56 to 1959-60 was as follows:—1955-56, 9.7 per cent.; 1956-57, 8.9 per cent.; 1957-58, 8.8 per cent.; 1958-59, 8.8 per cent.; and 1959-60, 8.9 per cent. Primage duty was in force during these years, and if this is added to net customs revenue the percentages become:—1955-56, 10.7 per cent.; 1956-57, 9.6 per cent.; 1957-58, 9.1 per cent.; 1958-59, 9.0 per cent.; and 1959-60, 9.1 per cent. The percentages of net customs revenue, excluding primage, to the total value of dutiable goods only were: 1955-56, 20.1 per cent.; 1956-57, 20.4 per cent.; 1957-58, 19.1 per cent.; 1958-59, 21.0 per cent.; and 1959-60, 19.9 per cent. The calculations are based on Australian currency values and on the assumption that the value of clearances approximated to the value of imports during the same period.

§ 13. Ships' and Aircraft Stores.

Prior to 1906, goods shipped in Australian ports on board oversea vessels as ships' stores were included in the general exports. From 1906, ships' and subsequently aircraft stores have been specially recorded as such, and have been omitted from the export figures. The value of these stores during each of the years 1955-56 to 1959-60, with oils separate, is shown in the following table:—

VALUE OF STORES LOADED ON OVERSEA SHIPS AND AIRCRAFT: AUSTRALIA.
(£'000.)

Item.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
Oils	7,970	9,059	8,383	6,704	7,817
All Stores (including oils) ..	13,539	14,208	12,798	10,876	12,413

In addition to oils, the principal items supplied to oversea ships and aircraft in 1959-60 were:—Meats, £1,488,234; fruit and vegetables, £388,558; eggs, £178,829; butter, £145,921; ale, porter, beer, etc., £308,856; sea food, £162,188; coal, £25,380; flour, £44,497; rice, £21,353; milk and cream, £26,792.

§ 14. Movement of Bullion and Specie.

1. **Imports and Exports.**—The following table shows the values of gold and silver bullion and specie and of bronze specie imported into and exported from Australia during each of the years 1957-58 to 1959-60.

IMPORTS AND EXPORTS, BULLION AND SPECIE: AUSTRALIA.
(£.)

Item.	Imports.			Exports.		
	1957-58.	1958-59.	1959-60.	1957-58.	1958-59.	1959-60.
Gold—Bullion ..	2,631,443	2,175,729	2,518,819	6,352,070	3,276,087	10,207,274
Specie ..	707	942	4,080	..	3,000	4,000
<i>Total</i> ..	<i>2,632,150</i>	<i>2,176,671</i>	<i>2,522,899</i>	<i>6,352,070</i>	<i>3,279,087</i>	<i>10,211,274</i>
Silver—Bullion ..	34,319	24,493	36,147	1,219,187	1,400,219	1,400,562
Specie ..	11,784	9,320	3,459	71,552	77,996	109,767
<i>Total</i> ..	<i>46,103</i>	<i>33,813</i>	<i>39,606</i>	<i>1,290,739</i>	<i>1,478,215</i>	<i>1,510,329</i>
Bronze—Specie ..	425	337	824	734	396	1,304
Total— Australian Pro- duce ..	..	..	..	7,626,405	4,743,943	11,716,148
Re-exports ..	..	..	..	17,138	13,755	6,759
<i>Grand Total</i> ..	<i>2,678,678</i>	<i>2,210,821</i>	<i>2,563,329</i>	<i>7,643,543</i>	<i>4,757,698</i>	<i>11,722,907</i>

2. Imports and Exports by Countries.—The next table shows the imports and exports of bullion and specie from and to various countries during the year 1959–60:—

**IMPORTS AND EXPORTS OF BULLION AND SPECIE BY COUNTRIES:
AUSTRALIA, 1959–60.**

(£.)

Country.	Imports.			Exports.		
	Bullion.	Specie.	Total.	Bullion.	Specie.	Total.
<i>Commonwealth Countries—</i>						
Australia (re-imported)	..	642	642	..	..	..
United Kingdom ..	266	963	1,229	10,707,721	3,919	10,711,640
<i>Australian Territories—</i>						
New Guinea ..	804,696	..	804,696	..	84,080	84,080
Norfolk Is. ..	..	..	..	..	528	528
Papua ..	624	..	624	..	16,181	16,181
Hong Kong ..	..	..	..	756,568	..	756,568
New Zealand ..	558,331	6,757	565,088	111,166	4,515	115,681
<i>Pacific Islands (British)—</i>						
Fiji ..	1,190,413	..	1,190,413	4,648	..	4,648
Gilbert and Ellice Is. ..	..	..	..	..	448	448
New Hebrides ..	..	..	..	..	75	75
Solomon Is. ..	575	..	575	..	4,150	4,150
Tonga ..	..	..	..	..	588	588
<i>Total Commonwealth Countries ..</i>	<i>2,554,905</i>	<i>8,362</i>	<i>2,563,267</i>	<i>11,580,103</i>	<i>114,484</i>	<i>11,694,587</i>
<i>Foreign Countries—</i>						
Germany, Federal Republic of ..	61	..	61	..	..	..
Italy ..	..	..	..	26,151	..	26,151
United States of America ..	..	1	1	1,582	587	2,169
<i>Total, Foreign Countries</i>	<i>61</i>	<i>1</i>	<i>62</i>	<i>27,733</i>	<i>587</i>	<i>28,320</i>
<i>Grand Total ..</i>	<i>2,554,966</i>	<i>8,363</i>	<i>2,563,329</i>	<i>11,607,836</i>	<i>115,071</i>	<i>11,722,907</i>

§ 15. Exports According to Industries.

1. Classification.—The following table provides an analysis of the total recorded value of Australian exports for the years 1957–58 to 1959–60. This analysis is designed to show fluctuations in the value of exports of Australian produce dissected according to the main industry of their origin, although any such classification is necessarily arbitrary in some respects.

EXPORTS OF AUSTRALIAN PRODUCE ACCORDING TO INDUSTRIAL GROUPS.

Industrial Group.	Value. (£'000.)			Proportion of Value of Exports of Australian Produce (excluding Gold). (Per cent.)		
	1957-58.	1958-59.	1959-60.	1957-58.	1958-59.	1959-60.
Agriculture, Horticulture and Viticulture—						
Unprocessed	56,495	77,991	94,220	7.1	9.8	10.4
Processed	77,028	78,213	70,918	9.7	9.9	7.8
Total	133,523	156,204	165,138	16.8	19.7	18.2
Pastoral—						
Unprocessed	388,386	366,510	442,966	48.7	46.3	48.7
Processed	74,384	67,044	75,180	9.3	8.5	8.3
Total	462,770	433,554	518,146	58.0	54.8	57.0
Dairy and Farmyard—						
Unprocessed	3,442	2,019	1,513	0.4	0.3	0.2
Processed	30,274	41,681	47,454	3.8	5.2	5.2
Total	33,716	43,700	48,967	4.2	5.5	5.4
Mines and Quarries (other than Gold)—						
Unprocessed	25,552	19,309	26,940	3.2	2.4	2.9
Processed	32,296	32,750	29,638	4.1	4.1	3.3
Total (a)	57,848	52,059	56,578	7.3	6.5	6.2
Fisheries—						
Unprocessed	3,961	4,322	4,839	0.5	0.5	0.5
Processed	1,789	1,249	960	0.2	0.2	0.1
Total	5,750	5,571	5,799	0.7	0.7	0.6
Forestry—						
Unprocessed	740	522	619	0.1	0.1	0.1
Processed	3,932	3,866	3,340	0.5	0.5	0.3
Total	4,672	4,388	3,959	0.6	0.6	0.4
Total Primary Produce—						
Unprocessed	478,576	470,673	571,097	60.0	59.4	62.8
Processed	219,703	224,803	227,490	27.6	28.4	25.0
Total	698,279	695,476	798,587	87.6	87.8	87.8
Manufactures	72,583	70,988	83,352	9.2	9.0	9.2
Refined Petroleum Oils	15,385	14,702	15,914	1.9	1.9	1.7
Unclassified	10,554	10,465	11,623	1.3	1.3	1.3
Total Australian Produce (excluding Gold)	796,801	791,631	909,476	100.0	100.0	100.0
Re-exports (excluding Gold)	14,793	16,553	17,995	..	..	..
Gold Exports(a)	6,352	3,279	10,211	..	..	..
Total Recorded Value of Exports	817,946	811,463	937,682	..	..	..

(a) The value of refined newly-won gold was £17,301,000 in 1957-58, £16,645,000 in 1958-59, and £16,770,000 in 1959-60.

2. Relative Importance of Industrial Groups.—In the year 1959-60, Australian produce (other than gold) exported amounted to approximately £909 million. Of this, £799 million or 88 per cent. was mainly produce of primary industries, comprising £571 million of unprocessed produce and £228 million of goods which had been processed in some degree before export. The values of the principal individual items of processed primary produce exported were:—Raw sugar, £26,671,000; flour, etc., £15,811,000; canned fruit, £12,381,000; dried fruit, £9,065,000; wool (scoured, tops, etc.), £49,045,000; canned meats, £13,319,000; butter, £28,646,000; milk (condensed, dried, etc.), £10,916,000; pig lead, £10,878,000; lead bullion, £5,260,000; zinc bars, blocks, etc., £3,402,000; copper ingots, £3,900,000; and undressed timber, £2,976,000.

The value of manufactures exported as classified above was £83 million, or approximately 9 per cent. of Australian produce (other than gold) exported in 1959-60. The values of principal individual items here included were:—Manufactures of metal, £48,133,000; implements and machinery, £8,682,000; drugs and chemicals, £6,230,000, and paper and stationery, £2,979,000.

The items enumerated indicate the arbitrariness of the line necessarily drawn between primary produce and manufactures in any classification of this kind. The value of processed primary products exported includes some element of value added by the simpler processes of manufacture, while the value shown for manufactures exported necessarily includes the value of raw materials (primary produce) used in those manufactures.

Refined petroleum oils exported are shown separately, as they consist of imported crude oils refined in Australia and re-exported in the refined form. The values of principal individual items shown as "unclassified" in 1959-60 were:—individual consignments of less than £50 in value, £4,639,000; and military equipment and stores and supplies for Australian projects overseas, £3,314,000.

§ 16. Australian Index of Export Prices.

1. **General.**—Over the past fifty years, the exports of Australia have become increasingly diversified, but although the proportion of highly manufactured exports has increased it is still small in relation to total exports. Most of the exports still consist of basic products such as wool, wheat, butter, etc.

2. **Historical.**—An annual index of export prices has been published by this Bureau since its inception.

The first index was compiled annually for the years 1901 to 1916-17. The method of computation was to select all articles of export which were recorded by units of quantity, and to apply to the quantities of these export commodities actually exported during any year the average price per unit ruling in the year 1901 (adopted as the base year). The total value so obtained was divided into the total actual (recorded) value of these exports for the year concerned. The quotient (multiplied by 1,000) thus obtained was the export price index number for that year.

The method was changed in 1918. A weight for all principal exports was calculated on the average quantities of exports for the nineteen and a half years from 1st January, 1897 to 30th June, 1916. To these weights were applied the "average unit export values" of each export in successive years, and a weighted aggregative index of "price" variations was derived. It was published for the years 1897 to 1929-30, and particulars of this index were last published in Official Year Book No. 24, page 147.

After the 1914-18 War, however, the relative importance of different exports changed considerably. In addition, the pattern of exports varied considerably from year to year.

3. **Present Indexes.**—For the reasons just mentioned, two new series of monthly export price indexes—one using fixed weights and the other using changing weights—were published in 1937, computed back to 1928. These are the only export price indexes now published.

The data on which both series are based differ from those utilized in the old series of annual index numbers. The most important change was the use of actual (or calculated) export parities, based on actual price quotations, in place of the "unit values" declared at the Customs.

The old index took no account of gold exports. For gold producing countries, although some exports of gold would be irrelevant (e.g., the Australian shipments of gold reserves during the depression), the exports of newly produced gold should be taken into account. In the new series, therefore, gold is included, but the weight given to it is not the quantity exported but the quantity produced.

The two series are compiled monthly, and both relate to commodities which normally constitute about 80 per cent. of the total value of exports of merchandise and silver together with gold production.

4. **The Fixed Weights Index.**—(i) *General.* This is a weighted aggregative index of price variations. It was computed back to 1928, with that year taken as base. It is now usually published on the base: Average of three years ended June, 1939 = 100.

The purpose of this index is to provide comparisons, over a limited number of years, of the level of prices of those commodities normally exported from Australia, making no allowance for variations during the period in the proportions of the different kinds of exports.

(ii) *Weights.* The original weights (used for the period 1928 to 1936) were, in round figures, the average annual exports (production in the case of gold) during the five years 1928-29 to 1932-33.

From July, 1936, the weights were revised, and are now based on the average annual exports (production in the case of gold) during the three years 1933-34 to 1935-36. The break of continuity was bridged by the usual method of splicing. Consideration is being given to adopting weights for a post-war period.

The weight adopted for wheat takes into account the wheat equivalent of flour exported; the weight allotted to greasy wool takes account of the greasy equivalent of scoured wool, tops, and wool on skins; and for some metals allowance is made for the metallic content of ores and concentrates exported.

The twenty items, together with the units of quantity and the weights or "quantity multipliers", are given in the following table.

EXPORT PRICE INDEX: COMMODITIES AND WEIGHTING SYSTEM.

(FROM 1ST JULY, 1936.)

Item.	Unit of Quantity.	"Quantity Multipliers" (Weights).	Percentage Distribution of Total Aggregate.			
			Base Period (1936-37 to 1938-39).		1959-60.	
			Excluding Gold.	Including Gold.	Excluding Gold.	Including Gold.
Wool	lb.	975,000,000	49.05	45.63	52.98	51.24
Wheat (a)	bushel	101,000,000	18.34	17.06	15.53	15.02
Butter	cwt.	2,140,000	12.21	11.36	9.78	9.46
Metals—						
Silver	oz.	7,300,000	0.68	0.64	7.99	7.72
Copper	ton	3,600	0.20	0.20		
Tin	"	1,300	0.31	0.28		
Zinc	"	99,000	2.05	1.90		
Lead	"	208,500	4.10	3.81		
Meats—						
Beef	lb.	182,000,000	2.56	2.38	7.84	7.58
Lamb	"	138,000,000	3.56	3.31		
Mutton	"	44,000,000	0.58	0.54		
Pork	"	16,000,000	0.43	0.40		
Sugar	ton	305,000	2.58	2.40	2.98	2.89
Dried Fruits—						
Sultanas	"	38,200	1.45	1.35	1.71	1.66
Raisins	"	3,000	0.12	0.11		
Currants	"	13,400	0.37	0.35		
Tallow	cwt.	600,000	0.69	0.64	0.53	0.51
Hides—						
Cattle	lb.	28,000,000	0.64	0.59	0.66	0.64
Calf	"	1,800,000	0.08	0.07		
Gold	fine oz.	937,000	..	6.98	..	3.28
			100.00	100.00	100.00	100.00

(a) Includes "wheat equivalent" of flour.

The percentage distributions of the "Total Aggregate" shown in the foregoing table are of importance, firstly, as showing their variations from time to time because of differential price movements as between the various commodities or groups, and secondly, as regards the effect on the indexes as a whole of the percentage price variations for each commodity or group.

(iii) *Prices.* The adoption of current market prices (as distinct from the former average unit export values) in the present indexes permitted the use of standards for each commodity. All export parities are calculated from price quotations from the most reliable and representative sources available. In most cases, the prices used are those at which current sales are being effected.

(iv) *Index Numbers.* The following table shows export price index numbers for Australia for individual commodities, groups of commodities, and all groups combined for each financial year from 1936-37 to 1959-60 and monthly from July, 1960, to March, 1961.

EXPORT PRICE INDEX: AUSTRALIA.

SIMPLE AGGREGATIVE INDEX: FIXED WEIGHTS.

INDIVIDUAL COMMODITIES, GROUPS OF COMMODITIES, AND ALL GROUPS COMBINED.

(Base of each Index: Average of three years ended June, 1939 = 100.)

Period.	Wool.	Wheat.	Butter.	Metals. (a)	Meats. (b)	Sugar.	Dried Fruits. (c)	Tallow.	Hides. (d)	Gold.	All Groups.
Percentage Distribution of Base Aggregate(e) ..	45.63	17.06	11.36	6.83	6.63	2.40	1.81	0.64	0.66	6.98	100.00
1936-37	122	123	92	120	98	104	103	122	113	99	115
1937-38	99	111	107	96	106	92	103	100	100	98	102
1938-39	79	66	101	84	96	104	94	78	87	103	83
1939-40	98	82	108	92	102	126	94	76	120	118	98
1940-41	101	102	110	95	103	137	95	82	98	121	104
1941-42	101	105	110	101	109	137	106	114	133	120	106
1942-43	117	106	114	100	112	152	112	119	145	119	114
1943-44	117	116	114	113	113	159	121	123	151	119	117
1944-45	117	154	147	129	122	172	128	151	147	120	130
1945-46	117	213	147	196	123	213	137	161	152	122	146
1946-47	173	305	173	308	139	264	152	361	334	122	203
1947-48	287	420	193	372	146	320	157	436	364	122	283
1948-49	365	413	233	478	171	343	162	499	421	122	332
1949-50	473	400	250	421	196	369	176	400	479	164	383
1950-51	999	432	271	689	209	410	226	356	752	176	654
1951-52	564	436	291	811	263	464	302	451	486	184	473
1952-53	616	445	313	504	314	501	297	358	369	186	483
1953-54	615	411	325	450	338	479	287	321	336	179	474
1954-55	538	357	313	511	344	445	267	349	218	178	431
1955-56	464	324	320	562	355	450	286	353	238	178	397
1956-57	578	327	250	545	368	501	319	357	240	178	444
1957-58	471	357	218	398	333	518	341	368	240	178	385
1958-59	362	350	230	386	394	475	383	367	335	178	339
1959-60	425	333	315	428	432	452	(f) 348	302	365	178	(f) 378
1960-61—											
July	392	335	269	422	477	447	(f) 305	311	280	178	(f) 360
August	362	330	252	417	469	455	(f) 318	311	274	178	(f) 342
September	366	338	235	412	460	466	(f) 331	327	304	178	(f) 343
October	362	339	245	408	(g)	469	(f) 333	338	308	179	(f) 342
November	377	339	239	409	(g)	450	(f) 338	333	310	180	(f) 346
December	373	334	235	390	(g)	455	(f) 342	317	302	179	(f) 341
January	377	330	225	376	(g)	447	(f) 337	308	307	180	(f) 338
February	392	331	215	386	(g)	451	(f) 336	317	300	178	(f) 346
March	400	333	208	391	(g)	450	(f) 339	338	308	178	(f) 351

(a) Silver, copper, tin, zinc, lead. (b) Beef, lamb, mutton, pork. Guaranteed minimum prices are used when operative. (c) Sultanas, raisins, currants. (d) Cattle hides, calf skins. (e) 1936-37 to 1938-39. (f) Preliminary. (g) Actual prices realized not yet fully known; provisional series are included in "All Groups" Index.

A graph showing index numbers for All Groups (including Gold) and for wool appears on page 482.

The group indexes in the table above show the great fluctuations and the wide dispersion of prices of export commodities in recent years. In particular, very great movements upwards and downwards have occurred in the price of wool. Since wool is a predominant export, and comprises 46 per cent. of the base aggregate of the index, fluctuations in wool prices obscure the effect on the "All Groups" Index of movements in prices of the other components. For this reason "Wool" and "All Groups Excluding Wool" are shown separately in the table following. The movement of the weighted average index for "All Groups Excluding Wool" contrasts with the pronounced fluctuations in prices of wool. Index numbers for "All Groups Excluding Gold" and for "All Groups Excluding Gold and Wool" are also shown in the table.

EXPORT PRICE INDEX: WOOL AND "OTHER GROUPS", AUSTRALIA.

(Base of each Index: Average of three years ended June, 1939 = 100.)

Period.	Wool.	All Groups.			All Groups.
		Excluding Wool.	Excluding Gold.	Excluding Gold and Wool.	
1936-37	122	108	116	110	115
1937-38	99	105	102	106	102
1938-39	79	87	82	84	83
1939-40	98	98	96	95	98
1940-41	101	106	103	104	104
1941-42	101	110	105	108	106
1942-43	117	112	114	111	114
1943-44	117	118	117	117	117
1944-45	117	141	130	144	130
1945-46	117	171	148	178	146
1946-47	173	228	209	243	203
1947-48	287	280	296	303	283
1948-49	365	305	348	332	332
1949-50	473	308	399	329	383
1950-51	999	365	690	393	654
1951-52	564	397	495	428	473
1952-53	616	371	505	399	483
1953-54	615	356	496	383	474
1954-55	538	342	450	366	431
1955-56	464	342	414	366	397
1956-57	578	331	464	353	444
1957-58	471	313	400	332	385
1958-59	362	320	351	341	339
1959-60	425	(a) 339	(a) 393	(a) 363	(a) 378
1960-61—					
July	392	(a) 332	(a) 373	(a) 355	(a) 360
August	362	(a) 326	(a) 355	(a) 348	(a) 342
September	366	(a) 325	(a) 356	(a) 347	(a) 343
October	362	(a) 324	(a) 354	(a) 346	(a) 342
November	377	(a) 320	(a) 358	(a) 341	(a) 346
December	373	(a) 315	(a) 354	(a) 335	(a) 341
January	377	(a) 306	(a) 350	(a) 324	(a) 338
February	392	(a) 308	(a) 359	(a) 327	(a) 346
March	400	(a) 310	(a) 364	(a) 330	(a) 351

(a) Preliminary.

5. The Changing Weights Index.—This series was designed for shorter period comparisons—from one or more months of the current year to the corresponding months of the previous year. The fixed weights index numbers indicate satisfactorily the general trend of export prices, but take no account of the relative quantities actually sold at the prices ruling in particular months. The changing weights index numbers, shown below, take account of this factor. In computing these, the "quantity multipliers" are the quantities actually exported (sold, in some cases) in the months (or periods) to which the index numbers relate.

For any given month, the procedure is to multiply the price of each commodity in that month, and its price in the corresponding month of the previous year, by the quantity exported during the given month. A comparison of the resulting aggregates gives one possible measure of the change in prices over the period, i.e., the change assuming that the proportions of the different kinds of exports whose prices are to be measured were the same as their proportions in the given month. Another possible measure is given by assuming that the proportions of the different kinds of exports in the given month were the same as their proportions in the corresponding month of the previous year. Accordingly, the first step in the procedure is repeated, substituting the quantities exported during the corresponding month of the previous year.

The index numbers so obtained have been proved over a period of years to lie very close together. As it is convenient for practical reasons to have one single figure rather

than two close alternatives, the two index numbers are multiplied together and the square root of the product is extracted. This is taken to be the index number for the month, the prices of the corresponding month of the previous year being taken as base.

The index numbers for the whole or portion of a year, as compared with the corresponding period of the previous year, are computed in very much the same way. The process involves merely the cumulative addition of the aggregates computed for the individual months, and extraction of the index numbers as explained above.

Index numbers computed on this basis are shown in the following table for the months July, 1959, to March, 1961, and for trade year periods ending in those months:—

EXPORT PRICE INDEX: CHANGING WEIGHTS.

(Base: Corresponding month (or period) of preceding year = 100.)

Month.	Month stated compared with same month of preceding year.		Period of trade year ending in month stated compared with same period of preceding year.	
	All Groups, Excluding Wool.	All Groups.	All Groups, Excluding Wool.	All Groups.
1959-60—				
July	114	113	114	113
August	111	117	113	115
September	111	117	112	116
October	109	120	111	118
November	107	117	110	118
December	109	122	110	118
January	105	122	109	119
February	107	116	109	118
March	106	114	109	118
April	104	104	108	117
May	101	100	108	115
June	(a) 98	(a) 102	(a) 107	(a) 114
1960-61—				
July	(a) 96	(a) 96	(a) 96	(a) 96
August	(a) 95	(a) 89	(a) 95	(a) 92
September	(a) 97	(a) 89	(a) 96	(a) 91
October	(a) 96	(a) 89	(a) 96	(a) 90
November	(a) 95	(a) 91	(a) 96	(a) 90
December	(a) 93	(a) 89	(a) 95	(a) 90
January	(a) 92	(a) 89	(a) 95	(a) 90
February	(a) 94	(a) 95	(a) 95	(a) 90
March	(a) 95	(a) 96	(a) 95	(a) 91

(a) Preliminary.

Monthly export price index numbers are issued in the mimeograph publication *Monthly Index of Australian Export Prices*, in the *Monthly Review of Business Statistics*, the *Digest of Current Economic Statistics* and the *Quarterly Summary of Australian Statistics*.

§ 17. External Trade of Australia and other Countries.

1. *Essentials of Comparison.*—Direct comparison of the external trade of any two countries is possible only when the general conditions prevailing therein, and the system of record, are more or less identical. For example, in regard to the mere matter of record, it may be observed that in one country the value of imports may be the value at the port of shipment, while in another the cost of freight, insurance and charges may be added thereto. Again, the values of imports and exports in one may be declared by merchants, whereas in another they may be the official prices fixed from time to time by a commission constituted for the purpose. In later years, moreover, a very substantial difference in the value of imports would result from the different methods of converting the moneys of foreign countries, i.e., from the application of current rates of exchange or of the mint par. Lastly, the figures relating to the external trade of any country are also affected in varying

degree by the extent to which they include transit or re-export trade. This class of trade represents a much greater proportion of the trade of Switzerland and Belgium-Luxembourg than that of other countries. France and the United Kingdom also re-export largely, whereas in Canada, Australia and New Zealand the same class of trade represents a comparatively small proportion of the total.

2. "Special Trade" of Various Countries.—In the following table, the figures, which are expressed in Australian currency, relate as nearly as possible to imports cleared for home consumption in the various countries specified and to exports of their domestic products. It is to be noted, however, that these figures do not invariably denote the same thing throughout, since, in the United Kingdom and other manufacturing countries, raw or partly manufactured materials are imported as for home consumption and, after undergoing some process of manufacture or further modification, are re-exported as domestic production. Nevertheless, a comparison of this character reveals approximately the extent of the external trade which otherwise would not be manifest. The countries listed below are not necessarily all the important trading countries of the world, but those important countries for which comparable statistics are available. Information for countries other than Australia has been extracted from publications of the United Nations.

IMPORTS CLEARED FOR HOME CONSUMPTION, AND EXPORTS OF DOMESTIC PRODUCTS (MERCHANDISE ONLY)(a): VARIOUS COUNTRIES, 1959.

Country.	Trade. (£A. Million.)			Trade per Head of Population.(£A.)		
	Imports Cleared. c.i.f.	Exports. f.o.b.	Total.	Imports Cleared.	Exports.	Total.
United States of America	(b)6,718.7	7,764.7	14,483.4	37.8	43.7	81.5
United Kingdom ..	(c)4,824.1	4,162.5	8,986.6	92.8	80.1	172.9
Germany, Federal Re-public of	3,784.8	4,377.2	8,162.0	71.7	82.9	154.6
Canada	(b)2,565.2	2,395.1	4,960.3	147.1	137.3	284.4
France	2,270.5	2,506.2	4,776.7	50.3	55.6	105.9
Netherlands	1,758.5	1,610.3	3,368.8	155.0	141.9	296.9
Japan	(d)1,607.1	1,543.3	3,150.4	17.3	16.6	33.9
Belgium-Luxembourg ..	1,536.6	1,471.0	3,007.6	163.0	156.0	319.0
Italy	1,491.5	1,292.4	2,783.9	30.4	26.3	56.7
Sweden	(d)1,073.7	984.8	2,058.5	144.0	132.1	276.1
Australia(e)	(b) 908.5	909.5	1,818.0	90.3	90.4	180.7
Switzerland	858.5	751.3	1,609.8	163.8	143.4	307.2
Denmark	(d) 715.2	624.1	1,339.3	157.3	137.3	294.6
Norway	(d) 590.6	361.6	952.2	166.1	101.7	267.8
Austria	511.2	432.1	943.3	72.5	61.3	133.8
Indonesia	204.9	389.3	594.2	2.3	4.3	6.6
Spain	354.9	224.6	579.5	11.9	7.5	19.4
Egypt	275.0	197.8	472.8	10.8	7.8	18.6
Chile	184.4	221.9	406.3	24.7	29.7	54.4
Turkey	197.8	158.0	355.8	7.4	5.9	13.3
Greece	253.1	91.1	344.2	30.6	11.0	41.6

(a) Includes silver. (b) f.o.b. (c) Covers goods imported less goods re-exported.
(d) Covers goods imported as distinct from goods cleared for home consumption. (e) Year ended June, 1960.

§ 18. Oversea Trade in Calendar Years.

For the purpose of comparison with countries which record overseas trade in calendar years, the following table has been compiled to show Australian imports and exports for each of the calendar years 1956 to 1960.

**OVERSEA TRADE IN CALENDAR YEARS: AUSTRALIA.
(£'000.)**

Year.	Merchandise.		Bullion and Specie.		Total.	
	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.
1956	764,597	823,422	3,235	22,236	767,832	845,658
1957	751,543	981,694	2,509	13,891	754,052	995,585
1958	792,891	738,913	2,541	4,083	795,432	742,996
1959	827,653	898,623	2,174	3,339	829,827	901,962
1960(a)	826,233	892,571	2,177	3,338	828,410	895,909

(a) Subject to revision.

§ 19. Excise.

Although excise goods have no immediate bearing on oversea trade, the rate of excise duty is in some cases related to the import duty on similar goods. Moreover, as the Excise Acts are administered by the Department of Customs and Excise, it is convenient to publish here the quantities of Australian produce on which excise duty has been paid. Particulars of Customs and Excise revenue are shown in Chapter XXI.—Public Finance. The following table shows the quantities of spirits, beer, tobacco, etc., on which excise duty was paid in Australia during the years 1958–59 and 1959–60.

QUANTITY OF SPIRITS, BEER, TOBACCO, ETC., ON WHICH EXCISE DUTY WAS PAID: AUSTRALIA.

Article.	1958–59.	1959–60.	Article.	1958–59.	1959–60.
	gallons.	gallons.		lb.	lb.
Beer	214,800,013	223,695,660	Cigarettes— Machine-made ..	34,991,739	38,536,804
	proof gallons.	proof gallons.	Petrol— Aviation Petrol (By-law) ..	gallons.	gallons.
Spirits—			Aviation Petrol (Non By-law) ..	10,362,568	7,409,362
Brandy	753,881	819,254	Petrol, n.e.i. ..	908,319,895	12,402,026
Gin	353,706	359,806			992,692,169
Whisky	467,762	380,081	Total Petrol ..	918,682,463	1,012,503,557
Rum	570,755	584,795	Aviation Turbine Fuel ..	15,551,058	30,277,206
Liqueurs	58,008	61,238			
Other	24,831	32,392	Diesel Fuel	49,959,092	48,985,564
Total Spirits (Potable) ..	2,228,943	2,237,566			
Spirits for—			Playing Cards ..	doz. packs. 96,771	doz. packs. 104,550
Fortifying Wine ..	2,194,626	2,299,790		60 papers or tubes.	60 papers or tubes.
Industrial or Scientific purposes ..	235,059	257,004	Cigarette Papers and Tubes ..	111,245,931	105,563,114
Manufacture of—				per 8,640 matches.	per 8,640 matches.
Essences	98,485	103,929	Matches	3,362,949	3,465,463
Scents and Toilet Preparations ..	64,396	68,589		tons.	tons.
Vinegar	147,998	138,510	Coal	17,335,395	17,072,346
	lb.	lb.		No.	No.
Tobacco	16,561,594	15,647,777	Cathode Ray Tubes ..	340,000	475,117
Snuff	865	90			
Cigars—					
Hand-made	16,491	12,965			
Machine-made ..	94,150	93,600			
Total Cigars ..	110,641	106,565			

§ 20. Interstate Trade.

Prior to the federation of the Australian Colonies (now States), each Colony published statistics of its trade with the other Colonies. A similar record was continued by the Commonwealth Government under the provisions of the Constitution (section 93). On the expiry of the "book-keeping" period, these records were discontinued as from 13th September, 1910, and the last published statements were for the year 1909. Later, the Governments of Western Australia and Tasmania revived the records, and relevant statistics are available again for those States. A detailed collection for Queensland was re-introduced from July, 1953.

At the Conference of Statisticians held in January, 1928, it was resolved that efforts should be made in other States to record the interstate movement of certain principal commodities.

Interstate trade statistics are now published in detail for Queensland, Western Australia and Tasmania, prepared by the Deputy Commonwealth Statisticians in those States. The Deputy Commonwealth Statistician in South Australia publishes some figures

for that State, made up from the records of Western Australia and Tasmania. The statistics of interstate trade for New South Wales and Victoria are very meagre. The Melbourne Harbour Trust publishes, in its annual report, the quantities of various commodities of interstate trade loaded and discharged in the Port of Melbourne. The trade with individual States is not disclosed.

§ 21. The Australian Balance of Payments.

1. **Introduction.**—Defining the balance of payments, the International Monetary Fund, in the second edition of its *Balance of Payments Manual* states “[It] . . . is a systematic record of all economic transactions during the period between residents of [a] country and residents of other countries.” In a broad sense, therefore, statistics of the balance of payments summarize in money terms the economic relations existing between a national economy and the rest of the world, and are pre-requisite to any attempt to examine the influence of external factors on the domestic economy.

The Australian economy is subject to large fluctuations in the level of export income and is affected in important respects by movements of overseas capital. As a result, balance of payments estimates have always assumed a particular importance in Australia. Between 1948–49 and 1959–60, for example, the value of exports was equivalent to 21 per cent. of national income, fluctuating between 31 per cent. of national income in 1950–51, the year of record wool prices, and 16 per cent. in 1958–59, a year of relatively low wool prices.

Official balance of payments estimates for Australia were first published for the years 1928–29 to 1930–31 as an appendix to Official Year Book No. 24. Prior to that, the only estimates published by this Bureau related to the balance of trade, with some reference to international transactions. Since 1930–31, estimates of the balance of payments have been published each year, except during the war period 1939 to 1945. From the first half of the year 1950–51, statistics of the balance of payments have been issued twice yearly in the mimeograph publication *The Australian Balance of Payments*. This publication brings the estimates forward to the end of the most recent financial year or half year and, together with a printed volume *The Australian Balance of Payments, 1928–29 to 1951–52*, provides also (i) a description of the various items included in the official estimates, (ii) an indication of the sources from which the estimates are derived, and (iii) an explanation of the methods used in making them. The following paragraphs contain a brief description of the concepts adopted and a summary of the transactions for the years 1958–59 and 1959–60.

The form of the Australian balance of payments closely follows the pattern set out by the International Monetary Fund for the presentation of balance of payments statistics, although modifications have been introduced to accord with Australian conditions.

In the definitions adopted by the International Monetary Fund, a basic distinction is drawn between “current” transactions and “capital” transactions. Current transactions consist of all transactions involving the transfer of ownership of goods or the rendering of services between residents of one country and residents of another country. Also included are items such as donations, reparations, etc. Capital transactions consist of all transactions involving the transfer of money, claims to money, and titles to investments, between residents of one country and those of another country.

This distinction is maintained in the Australian balance of payments accounts. Thus, transactions involving the transfer of the ownership of goods, i.e., imports and exports, and services, such as freight and insurance, investment income, etc., are included in current account, while predominantly financial transactions are included in capital account.

By definition, and because of the method of constructing the accounts, the balance of payments on current account is always equivalent to the balance on capital account. In practice, however, there are “errors and omissions” in the estimates. These are referred to as the “balancing item”. This item includes errors and omissions in the estimates made for all items in both current and capital accounts, short term financing transactions and other timing differences between the statistical recording of items such as imports, exports, transportation items, changes in share ownership, etc., and the crediting and debiting of payments for these transactions against Australia’s international reserves.

Details of Australian balance of payments have been assembled from a variety of sources of which the following are the more important:—(i) Statistics of exports and imports, obtained in the first place from Australian trade statistics; (ii) information on particular invisible and capital items, obtained by regular inquiry from private organizations and government departments; (iii) details of receipts and payments of foreign exchange, provided by the banking system; (iv) information on dividends remitted, undistributed income and movements of private investment in companies, provided by statistics of overseas investment collected by this Bureau; and (v) information on international reserves, supplied by the Reserve Bank.

2. **Current Account.**—The balance of payments on current account is constructed in the form of a series of credit and debit entries, the former comprising all transactions which result in receipts of foreign exchange and the latter all those which result in payments in foreign exchange.

Within the current account, the most important single relationship is the balance of trade—the difference between the value of exports and the value of imports as adjusted for balance of payments estimates. The balance of trade showed a surplus of £14 million in 1958–59 and a deficit of £8 million in 1959–60.

BALANCE OF PAYMENTS ON CURRENT ACCOUNT: AUSTRALIA.
(£A. million.)

Particulars.	1958–59.	1959–60.
CREDITS.		
1. Exports f.o.b.(a)	810.3	937.4
2. Gold Production	16.5	16.2
3. Transportation—		
Oversea ships	70.0	79.0
Other	8.0	8.4
	78.0	87.4
4. Travel	8.0	9.9
5. Income from Investment—		
Undistributed Income	2.5	3.8
Other	22.1	21.7
	24.6	25.5
6. Government	19.7	26.3
7. Miscellaneous	8.7	9.5
8. Donations, etc.—		
Immigrants' Funds, etc.	19.6	21.7
Other	7.4	8.0
	27.0	29.7
<i>Total Credits</i>	<i>992.8</i>	<i>1,141.9</i>
DEBITS.		
9. Imports f.o.b.(a)	796.3	945.7
10. Transportation—(b)		
Freight	114.0	127.0
Other	19.4	22.8
	133.4	149.8
11. Travel	28.6	36.3
12. Income from Investment—		
Public Authority Interest	25.1	26.9
Direct Investment	43.1	44.3
Undistributed Income	63.4	66.6
Other	11.2	9.6
	142.8	147.4
13. Government—		
Defence	11.9	16.6
Papua and New Guinea	13.4	15.7
Other	14.3	16.0
	39.6	48.3
14. Miscellaneous	32.3	36.8
15. Donations, etc.—		
Personal	15.2	15.0
Colombo Plan, etc.	4.1	4.1
Other	8.8	10.5
	28.1	29.6
<i>Total Debits</i>	<i>1,201.1</i>	<i>1,393.9</i>
Balance on Current Account	–208.3	–252.0

(a) The amounts shown above for imports and exports exclude gold and represent the recorded figures adjusted for estimates of balance of payments. (b) Total freight and insurance on imports, whether payable overseas or in Australia, is estimated at £115 million in 1958–59 and £128 million in 1959–60.

Although there was a trade surplus in 1958–59, and the trade deficit in 1959–60 was only small, when the invisible transactions were taken into account there were substantial deficits in the balance of payments on current account in these years. These deficits amounted to £208 million in 1958–59 and £252 million in 1959–60.

The most important of the current account invisibles are transportation items. These appear on both the debit and credit sides, the principal component on the debit side being freight (mainly freight on imports into Australia), which amounted to £114 million in 1958–59 and £127 million in 1959–60.

The items next in importance are those concerning income from investment. Debit entries under this heading include interest, dividends, rents, etc., payable overseas, while the credit entries include similar details of amounts receivable by Australian residents. These items include undistributed income. Since no monetary payment occurs in respect of the amounts included in this component, entries are also made in the capital account showing corresponding changes in the value of overseas or Australian investment. In total, investment income debits were £143 million in 1958–59 and £147 million in 1959–60. Credits in these periods amounted to £25 million and £26 million respectively.

The remaining items are much smaller than the two groups mentioned above. Government debits rose from £40 million in 1958–59 to £48 million in 1959–60, Government credits from £20 million to £26 million. Debits on account of donations, etc., were about £30 million, with credits generally slightly lower, but rising to the same level as debits in 1959–60.

3. Capital Account.—The capital account shows the annual movement in items which are regarded as Australian overseas assets and those which are regarded as Australian overseas liabilities.

On the assets side, by far the most important item is Australia's holdings of monetary gold and foreign exchange, usually referred to as international reserves. These reserves decreased by £9 million in 1958–59 and by £4 million in 1959–60.

On the liabilities side, the most important items are public authority debt and private investment in Australian companies.

In 1958–59, loan drawings from the International Bank, less repayments, resulted in an inflow of £2 million. In 1959–60, however, repayments exceeded drawings by £7 million. In 1958–59 and 1959–60, official loans other than from the International Bank showed substantial net inflows of £33 million and £42 million respectively from official borrowing in London, New York and Switzerland.

Items 2 and 8 relate to Australia's capital subscription to international monetary and finance agencies. On the assets side (Item 2) are shown increases in subscriptions to these institutions and on the liabilities side (Item 8) are shown corresponding increases in liabilities or changes in liabilities previously incurred. The liabilities take the form of bank balances and special non-negotiable, non-interest bearing securities payable in Australian currency but convertible by arrangement into foreign currency or gold. The principal movements in the years shown were associated with two increases of \$100 million each in Australia's quota to the International Monetary Fund in 1958–59 and 1959–60. In both instances, gold payments to the value of \$25 million were made to the Fund. The balance of the subscriptions represented liabilities to the Fund which were held in Australia in the form of the securities mentioned. In 1958–59 and 1959–60, under Items 2 and 8 there were net outflows of £20 million and £15 million. A more detailed account of these transactions is provided in *The Australian Balance of Payments 1958–59, 1959–60, and First Half 1960–61*.

In the periods shown, capital inflow resulting from overseas investment in Australian companies was substantially greater than net receipts from official loans raised overseas. Excluding life offices, overseas investment in Australian companies totalled £121 million in 1958–59 and in 1959–60 it rose to £188 million. These amounts included £20 million and £34 million respectively of portfolio investment and £101 million and £154 million of direct investment. The latter included substantial amounts of undistributed income which totalled £63 million in 1958–59 and £67 million in 1959–60.

As mentioned above, the balance on capital account is identical with the balance on current account, and the movement in international reserves reflects the combined movement of current and capital items. In practice, however, there is an unexplained residue which is included in the table below as the balancing item. This item includes errors and omissions in the estimates made for all items in both current and capital accounts, short term financing transactions and other timing differences between the statistical recording of items such as imports, exports, transportation items, changes in share ownership, etc., and the crediting and debiting of payments for these transactions against Australia's international reserves. The increase in this item in 1958–59 and the decrease in 1959–60 may have been associated to a greater degree than usual with such timing differences.

BALANCE OF PAYMENTS ON CAPITAL ACCOUNT: AUSTRALIA.

(£A. million.)

Particulars.	1958-59.	1959-60.
CHANGE IN ASSETS.		
1. International Reserves	— 9.0	— 4.4
2. International Agencies—I.M.F.	44.6	44.6
—I.B.R.D., I.D.A. .. .. .	..	5.9
	44.6	50.5
3. Other Official	— 6.0	— 8.5
4. Marketing Authorities	6.0	— 0.3
5. Portfolio Investment	— 1.4	— 4.4
6. Direct investment—		
Branches—		
Unremitted Profits	1.1	0.1
Other	4.1	0.9
Subsidiaries—		
Undistributed Profits	1.4	3.7
Other	3.8	3.2
	10.4	7.9
<i>Total—Change in Assets</i>	44.6	40.8
CHANGE IN LIABILITIES.		
7. Official Loans—		
I.B.R.D.	2.2	— 7.2
Other Commonwealth	11.4	36.7
States	22.1	6.0
Other	— 0.2	— 0.2
Discounts, etc.	— 0.7	— 0.5
	34.8	34.8
8. International Agencies—I.M.F.	27.1	33.4
—I.B.R.D., I.D.A.	— 2.8	2.4
	24.3	35.8
9. Foreign Banks	1.0	— 0.9
10. Portfolio Investment—		
Government Securities	— 4.5	— 2.3
Companies, etc.	19.8	34.0
	15.3	31.7
11. Direct Investment—		
Branches—		
Unremitted Profits	11.6	10.1
Other	9.4	23.0
Subsidiaries—		
Undistributed Profits	51.8	56.5
Other	28.7	64.4
	101.5	154.0
12. Life Assurance	— 5.0	— 2.4
13. Balancing Item	81.0	39.8
<i>Total—Change in Liabilities</i>	252.9	292.8
Balance on Capital Account	208.3	252.0

4. Balance of Payments on Current Account—Monetary Area and Regions.—Estimates are also made of Australia's current account transactions with various countries.

The table below shows the balance on current account in 1958-59 and 1959-60 for sterling and non-sterling countries. The latter include the United States of America and Canada, the European Economic Community, the European Free Trade Association (excluding the United Kingdom), the Soviet Area and "other" countries.

BALANCE OF PAYMENTS ON CURRENT ACCOUNT: AUSTRALIA
MONETARY AREAS AND REGIONS.

(£A. million.)

Particulars.	1958-59.	1959-60.
Exports f.o.b.—		
Sterling—		
United Kingdom	261.5	246.3
Other	149.7	176.6
Non-Sterling—		
U.S.A. and Canada	78.1	91.8
European Economic Community	145.1	179.3
European Free Trade Association(a)	8.7	8.6
Soviet Area	31.1	52.1
Other	136.1	182.7
Total	870.3	937.4
Imports f.o.b.—		
Sterling—		
United Kingdom	-309.6	-331.5
Other	-131.7	-153.0
Non-Sterling—		
U.S.A. and Canada	-131.7	-199.7
European Economic Community	-85.5	-109.4
European Free Trade Association(a)	-31.2	-36.1
Soviet Area	-7.5	-9.0
Other	-99.1	-107.0
Total	-796.3	-945.7
Invisibles—		
Sterling—		
United Kingdom	-70.5	-74.9
Other	-41.5	-45.3
Non-Sterling—		
U.S.A. and Canada	-86.4	-98.5
European Economic Community	-17.3	-21.8
European Free Trade Association(a)	-0.6	1.9
Soviet Area	-0.5	-1.0
Other	-14.9	-13.0
International Agencies	-7.1	-7.3
Gold Production	16.5	16.2
Total	-222.3	-243.7
Balance on Current Account—		
Sterling—		
United Kingdom	-118.6	-160.1
Other	-23.5	-21.7
Non-Sterling—		
U.S.A. and Canada	-140.0	-206.4
European Economic Community	42.3	48.1
European Free Trade Association(a)	-23.1	-25.6
Soviet Area	23.1	42.1
Other	22.1	62.7
International Agencies	-7.1	-7.3
Gold Production	16.5	16.2
Total	-208.3	-252.0

(a) Excludes United Kingdom.

NOTE.—Minus sign (—) denotes debits.

CHAPTER XIV.

TRANSPORT AND COMMUNICATION.

NOTE.—The statistics in this chapter relate in the main to the year 1959–60, with comparisons restricted to a few recent years. More detailed figures and particulars for earlier years are included in the annual bulletins, *Transport and Communication*, and *Finance, Part I.—Public and Private Finance*, published by this Bureau.

Current information on subjects dealt with in this chapter appears in the *Monthly Review of Business Statistics*, the *Quarterly Summary of Australian Statistics*, the *Digest of Current Economic Statistics*, the *Monthly Bulletin of Registrations of New Motor Vehicles* and a preliminary monthly statement on *Registrations of New Motor Vehicles*.

A. SHIPPING.

§ 1. Control of Shipping.

1. **Commonwealth Navigation and Shipping Legislation.**—By section 51 (i) of the Commonwealth Constitution, the Parliament of the Commonwealth is empowered to make laws in respect of “Trade and commerce with other countries, and among the States.” By section 98, the power in this particular respect is further defined as extending to navigation and shipping. Section 51 (vii) empowers the Commonwealth Parliament to legislate in respect of “Lighthouses, lightships, beacons and buoys” and section 51 (ix) in respect of “Quarantine”.

A review of the introduction and development of the Navigation Act 1912–1950 was given in *Official Year Book No. 40*, pages 110–2. Amendments to the Principal Act were made by the Navigation Acts of 1952, 1953, 1956 and 1958.

Other shipping Acts under the powers of the Commonwealth are the Sea-Carriage of Goods Act 1924, the Seamen's Compensation Act 1911–1959, and the Seamen's War Pensions and Allowances Act 1940–1959, the Australian Coastal Shipping Commission Act 1956 and the Stevedoring Industry Act 1956–57.

The control of shipping during the 1939–45 War and in the early post-war period, and the establishment of the Maritime Industry Commission (abolished in 1952), the Australian Stevedoring Industry Board (replaced in 1956 by the Australian Stevedoring Industry Authority), and the Australian Shipping Board (replaced in 1956 by the Australian Coastal Shipping Commission) are described in *Official Year Book No. 36*, pages 121–30 and *No. 39*, pages 147–8.

2. **Australian Coastal Shipping Commission.**—This Commission was established in 1956 for the purpose of maintaining and operating interstate, overseas and territorial shipping services, and replaced the Australian Shipping Board. It operates the Australian National Line, a Commonwealth-owned merchant shipping service which, at 30th June, 1960, comprised 43 vessels totalling 182,928 gross tons.

These included 15 vessels with a gross tonnage 500 to 3,000; 13 vessels with a gross tonnage 3,000 to 5,000; 14 vessels with a gross tonnage 5,000 to 8,000; and one vessel with a gross tonnage 10,229, the bulk ore carrier, *Mount Keira*. A similar vessel of the same tonnage was launched at Whyalla on 29th March, 1960, and christened *Mount Kembla*. One of the new additions to the Australian National Line, the *Princess of Tasmania*, which has a carrying capacity of 140 cars, is operating as a passenger and car ferry between Melbourne, Victoria and Devonport, Tasmania. Also, the vehicular deck cargo ferry *Bass Trader* will shortly be entering the sea-road service across Bass Strait.

3. **Australian Shipbuilding Board.**—For an account of the establishment, functions and operations of this Board, *see* Chapter XXX.—Miscellaneous, of this Year Book.

§ 2. System of Record.

In the system of recording statistics of oversea shipping, Australia is considered as a unit, and therefore only one entry and one clearance are counted for each voyage, without regard to the number of States visited (*see* also § 4, p. 524).

On arrival at, or departure from, a port in Australia, whether from or for an oversea country or from or for another port in Australia, the master or agent must "enter" the vessel with the Customs authorities at the port, and supply certain prescribed information in regard to the ship, passengers and cargo. At the end of each month, the information so obtained is forwarded to the Bureau of Census and Statistics. This information relates, in the main, only to vessels engaged in the carriage of passengers and/or cargo between Australian States or between Australia and oversea countries.

The volume of the vessel, as distinct from the cargo it carries, is recorded in net tons, i.e., the gross tonnage or internal cubic capacity less certain deductions on account of crew spaces, engine room, water ballast and other spaces not used for passengers or cargo. It is thus a rough measure of the capacity of the vessel for cargo or passengers. The unit of measurement is the *ton register* of 100 cubic feet.

Most of the cargo is recorded in terms of the ton weight of 2,240 lb. However, some additional cargo, mainly bulky commodities, is shipped and recorded on the basis of 40 cubic feet of space used representing 1 ton measurement.

Except in § 5. Shipping at Principal Ports (page 527), intra-State (coastal) movements of vessels, including those of vessels engaged solely in trade within State limits, are excluded from the statistics in the following pages.

§ 3. Oversea Shipping.

1. **Total Movement.**—The following table shows the number of entrances and clearances combined of oversea vessels at Australian ports, and the aggregate net tonnage, during each of the years 1955–56 to 1959–60:—

OVERSEA SHIPPING: ENTRANCES AND CLEARANCES (COMBINED) OF
VESSELS DIRECT, AUSTRALIA.

Particulars.	1955–56.	1956–57.	1957–58.	1958–59.	1959–60.
Number of Vessels	4,882	5,290	5,254	5,463	5,945
Net Tonnage .. '000 tons	22,324	23,659	24,515	26,019	28,874

Particulars of the total oversea movement of shipping for each year from 1822 to 1920–21 were published in Official Year Book No. 15, page 507, and for each year from 1921–22 to 1950–51 in Official Year Book No. 40, page 97.

2. **Total Oversea Shipping, States.**—The following table shows, for each State and the Northern Territory, the number of entrances and clearances of vessels direct from and to oversea countries, and the aggregate net tonnage, during the year 1959–60.

OVERSEA SHIPPING: ENTRANCES AND CLEARANCES OF VESSELS DIRECT, 1959-60.

Particulars.		N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	Aust.
Entrances	No.	1,031	439	456	186	768	50	46	2,976
	'000 net tons	4,641	2,955	1,553	780	4,290	162	97	14,478
Clearances	No.	939	396	586	201	777	31	39	2,969
	'000 net tons	4,288	2,708	2,257	805	4,092	139	107	14,396

3. *Shipping Communication with Various Countries.*—A vessel arriving in Australia from overseas is recorded as coming from the country where the voyage commenced, irrespective of the number of intermediate ports of call. Similarly, a vessel leaving Australia is recorded as going to the country where the voyage is scheduled to terminate.

The following table shows statistics of the net tonnage entered and cleared, with cargo and in ballast, according to the principal countries where vessels commenced or terminated their voyages to or from Australia.

OVERSEA SHIPPING: COUNTRIES FROM WHICH ENTERED OR FOR WHICH CLEARED, AUSTRALIA.

('000 Net Tons.)

Country from which Entered or for which Cleared.			With Cargo or in Ballast.	Entered.			Cleared.		
				1957-58.	1958-59.	1959-60.	1957-58.	1958-59.	1959-60.
United Kingdom	..	..	Cargo	1,654	1,656	1,570	1,954	2,079	1,939
			Ballast	35	51	33	4	39	44
New Zealand	..	..	Cargo	762	686	750	1,151	1,061	1,162
			Ballast	483	497	530	55	79	73
Other Commonwealth Countries			Cargo	2,341	2,392	2,646	1,772	1,943	2,202
			Ballast	157	369	265	828	835	959
Arabian States	..	..	Cargo	1,730	1,684	2,189	83	27	195
			Ballast	23	20	17	2,148	2,269	2,453
Indonesia	..	..	Cargo	1,043	1,091	1,291	140	112	104
			Ballast	140	120	114	792	896	775
Iran	..	..	Cargo	991	1,190	798	21	23	86
			Ballast	34	7	20	218	241	245
Japan	..	..	Cargo	494	555	739	847	893	1,288
			Ballast	441	390	893	6	25	27
United States of America			Cargo	627	674	723	577	590	623
			Ballast	14	4	6	36	17	21
Other Foreign Countries	..		Cargo	1,328	1,421	1,741	1,328	1,773	2,064
			Ballast	87	140	153	171	170	136
Total	..	..	Cargo	10,970	11,349	12,447	7,873	8,501	9,663
			Ballast	1,414	1,598	2,031	4,258	4,571	4,733
Total, with Cargo and in Ballast	..			12,384	12,947	14,478	12,131	13,072	14,396

4. *Country of Registration of Oversea Shipping.*—Vessels registered at ports in Commonwealth countries accounted for 52.6 per cent. of the net tonnage of shipping entering Australian ports in 1959-60. This proportion has varied considerably since the end of the 1939-45 War. By 1946-47, the proportion had increased from the low level of 43.4 per cent. recorded in 1943-44 to 76.2 per cent., but since then has declined.

Particulars of oversea shipping which entered Australian ports during each of the years 1957-58 to 1959-60 are given in the following table according to country of registration of vessels.

OVERSEA SHIPPING: COUNTRY OF REGISTRATION OF VESSELS ENTERED, AUSTRALIA.

('000 Net Tons.)

Vessels Registered at Ports in—		1957–58.	1958–59.	1959–60.	Vessels Registered at Ports in—		1957–58.	1958–59.	1959–60.
<i>Commonwealth Countries—</i>	<i>Countries—</i>				<i>Foreign Countries—</i>	<i>continued—</i>			
Australia ..	..	360	382	391	Norway ..	..	1,459	1,626	1,776
New Zealand ..	..	503	425	451	Panama ..	..	558	404	595
United Kingdom ..	..	5,242	5,393	6,305	Sweden ..	..	384	510	421
Other ..	..	467	438	472	U.S.A. ..	..	385	355	320
					Other ..	..	421	680	860
In Cargo ..	..	5,738	5,767	6,574	In Cargo ..	..	5,232	5,582	5,873
In Ballast ..	..	834	871	1,045	In Ballast ..	..	580	727	986
<i>Total Commonwealth Countries</i>	<i>Proportion of total</i>	<i>6,572</i>	<i>6,638</i>	<i>7,619</i>	<i>Total Foreign Countries</i>	<i>Proportion of total</i>	<i>5,812</i>	<i>6,309</i>	<i>6,859</i>
	%	53.1	51.3	52.6		%	46.9	48.7	47.4
<i>Foreign Countries—</i>					<i>All Countries—</i>				
Denmark ..	..	325	282	331	In Cargo ..	..	10,970	11,349	12,447
France(a) ..	..	314	327	342	Proportion of total %	..	88.6	87.7	86.0
Germany, Federal Republic of ..	..	140	120	155	In Ballast ..	..	1,414	1,598	2,031
Italy ..	..	553	505	532	Proportion of total %	..	11.4	12.3	14.0
Japan ..	..	661	752	779					
Netherlands ..	..	612	748	748	Grand Total ..	..	12,384	12,947	14,478

(a) Includes New Caledonia.

The Australian tonnage which entered Australian ports from overseas during the year 1959–60 represented 2.7 per cent. of the total tonnage entered and was confined mainly to the New Zealand and Pacific Islands trade.

The proportion of overseas shipping tonnage which entered Australia in cargo was 86.0 per cent. in 1959–60, and has ranged about this figure in recent years. The proportion of shipping which cleared in cargo was considerably lower (67.1 per cent.), also in keeping with the corresponding figures for recent years.

§ 4. Interstate Shipping.

1. **System of Record.**—*Interstate Shipping* comprises two elements: (a) vessels engaged solely in interstate trade; and (b) vessels trading between Australia and overseas countries and in the course of their voyages proceeding from one State to another. (However, these vessels, except under special circumstances, do not engage in interstate carrying. Numerous overseas vessels obtain single voyage permits or exemptions under the Navigation Act. Such vessels include overseas tankers carrying petroleum products interstate, and, since the withdrawal of interstate passenger liners, other overseas vessels, under permit, carrying passengers and frozen cargo on the interstate run). No complexity enters into the record of those in category (a), but with regard to the method of recording the movements of the overseas vessels (b), some explanation is necessary. Each State desires that its shipping statistics should show in full its shipping communication with overseas countries, but at the same time it is necessary to avoid any duplication in the statistics for Australia as a whole. In order to meet these dual requirements, a vessel arriving in any State from an overseas country—say the United Kingdom—via another State, is recorded in the second State as from the United Kingdom “Oversea via States”, thus distinguishing the movement from a direct overseas entry. Continuing the voyage, the vessel is again recorded for the statistics of the third State as from the United Kingdom “Oversea via States”. On an inward voyage, the clearance from the first State to the second State is a *clearance* interstate, and is included with interstate tonnage in conformity with the pre-federation practice of the States, and to preserve the continuity of State statistics. Thus, movements of ships which are, from the standpoint of Australia as a whole, purely coastal movements, must for the individual States be recorded as “Oversea via States” or “Interstate” according to the direction of the movement. The significance of the record of these movements will be seen more clearly

from the following tabular presentation of the inward and outward voyages to and from Australia of an overseas vessel which, it is presumed, reaches Fremantle (Western Australia) and then proceeds to the terminal port of the voyage—Sydney (New South Wales)—via South Australia and Victoria. From the terminal port the vessel will commence the outward voyage and retrace its inward track.

ITINERARY OF AN OVERSEA VESSEL ON THE AUSTRALIAN COAST.

Particulars.	Recorded as—		
	For the State and for Australia.	For the States.	
	1.	2.	3.
Inward Voyage—	Oversea direct	Interstate direct	
Enters Fremantle from United Kingdom			
Clears Fremantle for Adelaide			
Enters Adelaide from United Kingdom via Fremantle			Oversea via States
Clears Adelaide for Melbourne			
Enters Melbourne from United Kingdom via Adelaide			Oversea via States
Clears Melbourne for Sydney			
Enters Sydney from United Kingdom via Melbourne			Oversea via States
Outward Voyage—			
Clears Sydney for United Kingdom via Melbourne			Oversea via States
Enters Melbourne from Sydney		Interstate direct	
Clears Melbourne for United Kingdom via Adelaide			Oversea via States
Enters Adelaide from Melbourne		Interstate direct	
Clears Adelaide for United Kingdom via Fremantle			Oversea via States
Enters Fremantle from Adelaide		Interstate direct	
Clears Fremantle for United Kingdom ..	Oversea direct		

From the method outlined above, the requirements for Australia and for the individual States are ascertained as follows. (a) The aggregate of all ships recorded for each State as "Oversea direct" gives the overseas shipping for Australia as a whole; (b) the aggregate for all ships recorded in any State as "Oversea direct" plus those recorded as "Oversea via States" gives the total overseas shipping for that State; and (c) the aggregate for all ships recorded as "Oversea via States" may also be used, together with those recorded as "Interstate direct" (including those engaged solely in interstate movement) to furnish figures showing the total interstate movement of shipping.

2. Interstate Movement.—(i) *Interstate Direct.* The following table shows the number of entrances and the net tonnage of vessels recorded into each State and the Northern Territory from any other State (including overseas vessels on interstate direct voyages as in column 2 above) during each of the years 1957–58 to 1959–60.

INTERSTATE MOVEMENT OF SHIPPING: ENTRANCES OF VESSELS
INTERSTATE DIRECT.

State or Territory.	Number.			Net Tons ('000).		
	1957–58.	1958–59.	1959–60.	1957–58.	1958–59.	1959–60.
New South Wales	1,861	1,865	1,903	5,119	5,172	5,493
Victoria	1,673	1,729	1,720	4,231	4,639	4,640
Queensland	690	701	747	1,766	1,853	1,947
South Australia	1,079	1,066	1,060	3,767	3,575	3,518
Western Australia	548	525	596	2,604	2,509	2,759
Tasmania	1,104	1,068	1,073	1,267	1,115	1,257
Northern Territory	47	54	70	86	82	128
Australia	7,002	7,008	7,169	18,840	18,945	19,742

(ii) *Overseas via States.* The figures in the following table show the number of entrances and clearances of vessels to and from overseas countries via other Australian States as in column 3 in the table in para. 1 above, and their aggregate tonnage.

INTERSTATE MOVEMENT OF SHIPPING: ENTRANCES AND CLEARANCES OF VESSELS OVERSEAS VIA OTHER AUSTRALIAN STATES, 1959-60.

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	Aust.
Entrances .. No.	745	824	388	513	40	185	2	2,697
'000 net tons	3,691	4,099	1,784	2,448	218	868	7	13,115
Clearances .. No.	726	727	269	434	39	199	3	2,397
'000 net tons	3,361	3,671	1,211	2,071	260	896	5	11,475

(iii) *Total Interstate Movement.* In order to ascertain the aggregate movement of interstate shipping, including the total interstate movement of overseas vessels, the figures in the two preceding tables must be combined. The following table shows, for each State and the Northern Territory, the number of entrances and clearances of vessels from and for other States (including the interstate movement of overseas vessels) during the year 1959-60, together with the aggregate net tonnage.

INTERSTATE MOVEMENT OF SHIPPING: TOTAL, 1959-60.

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	Aust.
Entrances .. No.	2,648	2,544	1,135	1,573	636	1,258	72	9,866
'000 net tons	9,184	8,739	3,731	5,965	2,978	2,125	135	32,857
Clearances .. No.	2,687	2,591	1,012	1,557	626	1,273	73	9,819
'000 net tons	9,313	8,993	3,043	5,902	3,143	2,103	125	32,622

The following table shows the total interstate movement of shipping, including overseas vessels travelling overseas via States and interstate direct, for Australia for each of the years 1955-56 to 1959-60.

INTERSTATE MOVEMENT OF SHIPPING: TOTAL, AUSTRALIA.

Particulars.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
Entrances .. No.	8,362	8,505	9,093	9,446	9,866
'000 net tons	28,868	27,962	29,464	30,932	32,857
Clearances .. No.	8,460	8,480	9,093	9,425	9,819
'000 net tons	29,095	27,763	29,553	30,842	32,622

3. *Shipping Engaged Solely in Interstate Trade.*—The following table shows, for each State and the Northern Territory, the number of entrances direct from other States of vessels engaged solely in interstate trade (i.e., excluding overseas vessels in continuation of their overseas voyages) during the year 1959-60, together with the net tonnage.

SHIPPING ENGAGED SOLELY IN INTERSTATE TRADE(a): ENTRANCES, 1959-60.

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	Aust.
Ships entered ..	1,358	1,180	446	810	214	953	53	5,014
Net tons .. '000	3,190	1,881	681	2,212	691	822	79	9,556

(a) Excluding vessels travelling interstate via ports in the same State.

4. Interstate and Coastal Shipping Services.—The following table shows particulars, so far as they are available, of all vessels engaged in the regular interstate or coastal services (intrastate) at the end of each of the years 1956 to 1960:—

INTERSTATE AND COASTAL SHIPPING SERVICES: AUSTRALIA.

Particulars.	1956.	1957.	1958.	1959.	1960.
Number of companies operating ..	41	41	48	49	47
Number of vessels ..	174	178	196	182	178
Tonnage { Gross ..	511,534	544,842	536,666	512,703	514,710
Net ..	275,337	292,110	282,651	272,488	269,866
Horse-power (Nominal) ..	48,667	51,498	56,265	53,432	67,471
Number of passengers for which licensed(a) { 1st class ..	1,777	1,787	1,799	1,525	1,318
2nd class and steerage ..	526	523	428	350	344
Complement of { Masters and officers ..	682	702	713	689	670
Crew { Engineers ..	776	805	770	740	761
Other ..	4,563	4,552	4,375	3,980	3,825

(a) Excludes purely day-passenger accommodation.

NOTE.—This table excludes particulars of a small number of chartered vessels for which returns could not be obtained.

§ 5. Shipping at Principal Ports.

1. Total Shipping, Australia.—The following table shows the total volume of shipping—oversea, interstate and coastal—which entered the principal ports of Australia during the years 1958-59 and 1959-60. The movements of warships and of other non-commercial vessels are excluded from the table.

TOTAL SHIPPING: ENTRANCES AT PRINCIPAL PORTS, AUSTRALIA.

Port of Entry.	1958-59.		1959-60.		Port of Entry.	1958-59.		1959-60.	
	Num-ber.	Net Tons.	Num-ber.	Net Tons.		Num-ber.	Net Tons.	Num-ber.	Net Tons.
		'000.		'000.			'000.		'000.
<i>New South Wales—</i>					<i>South Australia—</i>				
Sydney(a) ..	4,593	12,129	4,794	13,349	Adelaide ..	2,751	5,448	2,658	5,463
Newcastle ..	2,425	4,530	2,442	4,620	Port Lincoln ..	439	452	431	465
Port Kembla ..	747	2,295	921	2,919	Port Pirie ..	420	915	392	901
					Rapid Bay ..	143	224	112	156
					Wallaroo ..	116	181	45	103
					Whyalla ..	427	1,382	461	1,505
<i>Victoria—</i>					<i>Western Australia—</i>				
Melbourne ..	2,686	9,599	2,743	10,160	Fremantle(b) ..	1,182	6,069	1,273	6,602
Geelong ..	486	2,389	549	2,799	Albany ..	118	484	134	562
					Bunbury ..	111	347	119	409
					Carnarvon ..	92	141	76	117
					Geraldton ..	106	295	97	303
					Yampi ..	130	319	142	413
<i>Queensland—</i>					<i>Tasmania—</i>				
Brisbane ..	1,358	4,289	1,417	4,675	Hobart ..	479	1,116	488	1,237
Bowen ..	63	215	38	119	Burnie ..	298	504	316	550
Cairns ..	314	631	292	658	Devonport ..	257	230	364	463
Gladstone ..	125	351	99	356	Launceston ..	519	608	519	566
Mackay ..	113	299	120	283					
Rockhampton ..	129	333	106	242	<i>Northern Territory—</i>				
Townsville ..	339	1,019	365	1,077	Darwin ..	84	153	118	232

(a) Includes Botany Bay.

(b) Includes Kwinana.

2. **Total Shipping—Australia, New Zealand and the United Kingdom.**—The following table shows the total shipping tonnage which entered the principal ports of Australia during 1959–60 and of New Zealand and the United Kingdom during 1959.

TOTAL SHIPPING: ENTRANCES AT PORTS, AUSTRALIA, NEW ZEALAND AND THE UNITED KINGDOM.

('000 Net Tons.)

Port.	Net Tonnage Entered.	Port.	Net Tonnage Entered.	Port.	Net Tonnage Entered.
AUSTRALIA —		NEW ZEALAND—		ENGLAND AND WALES—	
Sydney (N.S.W.) ..	13,349	Wellington ..	4,379	<i>continued.</i>	
Melbourne (Vic.) ..	10,160	Auckland ..	3,913	Tyne Ports ..	7,388
Fremantle (W.A.) ..	6,602	Lyttleton ..	3,018	Bristol ..	6,073
Adelaide (S.A.) ..	5,463	Dunedin ..	1,320	Hull ..	6,010
Brisbane (Qld.) ..	4,675	Napier ..	859	Dover ..	5,876
Newcastle (N.S.W.) ..	4,620	New Plymouth ..	773	Swansea ..	4,912
Port Kembla (N.S.W.) ..	2,919	Bluff ..	572	Middlesbrough ..	4,878
Geelong (Vic.) ..	2,799			Cardiff ..	3,153
Whyalla (S.A.) ..	1,505	ENGLAND AND WALES—			
Hobart (Tas.) ..	1,237	London ..	43,425		
Townsville (Qld.) ..	1,077	Southampton ..	25,162	SCOTLAND—	
Port Pirie (S.A.) ..	901	Liverpool (including Birkenhead) ..	19,617	Glasgow ..	7,876
Cairns (Qld.) ..	658	Manchester (including Runcorn) ..	8,313		
Launceston (Tas.) ..	566			NORTHERN IRELAND—	
				Belfast ..	7,455

§ 6. Shipping Cargo.

1. **Oversea and Interstate Cargo.**—(i) *Australia.* The table hereunder shows the aggregate tonnage of overseas and interstate cargo discharged and shipped at Australian ports for the years 1955–56 to 1959–60. Most of the cargo is recorded in terms of the ton weight of 2,240 lb., the remainder, mainly bulky commodities, being shipped and recorded on the basis of 40 cubic feet of space occupied representing 1 ton measurement.

SHIPPING CARGO MOVEMENT: AUSTRALIA.

('000 Tons.)

Year.	Oversea Cargo.				Interstate Cargo.			
	Discharged.		Shipped.		Discharged.		Shipped.	
	Weight.	Meas.	Weight.	Meas.	Weight.	Meas.	Weight.	Meas.
1955–56 ..	12,431	3,421	6,666	1,546	11,184	1,572	11,632	1,315
1956–57 ..	12,596	2,752	8,734	1,378	11,862	1,285	11,899	1,290
1957–58 ..	13,719	2,914	7,366	1,489	12,621	1,335	12,614	1,157
1958–59 ..	14,232	2,666	8,646	1,469	12,236	1,288	12,345	1,047
1959–60 ..	15,458	3,263	10,108	1,479	12,535	1,562	12,923	1,360

(ii) *Principal Ports.* The following table shows the tonnage of oversea and interstate cargo discharged and shipped at the principal ports of Australia during 1959-60.

CARGO DISCHARGED AND SHIPPED AT PRINCIPAL PORTS, 1959-60.

('000 Tons.)

Port.	Discharged.				Shipped.			
	Oversea.		Interstate.		Oversea.		Interstate.	
	Wt.	Meas.	Wt.	Meas.	Wt.	Meas.	Wt.	Meas.
Sydney	2,011	1,294	604	188	1,408	390	546	188
Botany Bay	2,979	..	40	..	58	..	603	..
Newcastle	277	..	1,730	..	1,021	..	2,411	1
Port Kembla	357	21	3,035	..	691	..	598	..
Other .. .. .	..	..	..	..	20	15	5	3
<i>Total, New South Wales</i>	<i>5,624</i>	<i>1,315</i>	<i>5,409</i>	<i>188</i>	<i>3,198</i>	<i>405</i>	<i>4,163</i>	<i>192</i>
Melbourne	2,762	1,152	1,915	490	734	531	513	536
Geelong	2,571	76	584	1	753	1	858	1
Portland	59	..	20	..	16	..	..	..
<i>Total, Victoria</i>	<i>5,392</i>	<i>1,228</i>	<i>2,519</i>	<i>491</i>	<i>1,503</i>	<i>532</i>	<i>1,371</i>	<i>537</i>
Brisbane	287	230	845	123	693	90	48	37
Cairns	36	1	83	15	264	1	53	11
Gladstone	15	8	70	7	73	..	19	..
Mackay	2	..	59	..	251	..	68	..
Townsville	25	1	185	20	310	2	81	2
Other	1	..	22	8	100	3	335	28
<i>Total, Queensland</i>	<i>366</i>	<i>240</i>	<i>1,264</i>	<i>173</i>	<i>1,691</i>	<i>96</i>	<i>604</i>	<i>78</i>
Port Adelaide	396	320	1,716	118	363	167	205	73
Ardrossan .. .. .	..	..	2	..	39	..	157	..
Port Lincoln	38	..	44	..	227	..	30	..
Port Pirie	21	..	182	..	412	..	213	..
Rapid Bay .. .. .	..	..	..	..	..	..	238	..
Whyalla	5	..	238	..	50	..	3,321	..
Other	38	1	1	1	231	2	201	7
<i>Total, South Australia</i>	<i>498</i>	<i>321</i>	<i>2,183</i>	<i>119</i>	<i>1,322</i>	<i>169</i>	<i>4,365</i>	<i>80</i>
Fremantle	3,019	120	398	183	1,488	71	1,105	36
Bunbury	89	..	2	..	222	62	23	21
Geraldton	46	..	..	..	234	1	20	1
Yampi .. .. .	..	..	3	..	..	..	790	..
Other	67	1	40	3	288	11	17	12
<i>Total, Western Australia</i>	<i>3,221</i>	<i>121</i>	<i>443</i>	<i>186</i>	<i>2,232</i>	<i>145</i>	<i>1,955</i>	<i>70</i>
Hobart	125	22	411	163	69	112	208	102
Burnie	37	4	68	28	34	3	46	144
Launceston	117	4	118	47	45	6	63	55
Other	15	8	68	163	2	8	141	98
<i>Total, Tasmania</i>	<i>294</i>	<i>38</i>	<i>665</i>	<i>401</i>	<i>150</i>	<i>129</i>	<i>458</i>	<i>399</i>
Darwin, Northern Territory	63	..	52	4	12	3	7	4
<i>Australia</i>	<i>15,458</i>	<i>3,263</i>	<i>12,535</i>	<i>1,562</i>	<i>10,108</i>	<i>1,479</i>	<i>12,923</i>	<i>1,360</i>

2. **Oversea Cargo according to Country of Registration of Vessels.**—The following table shows the total oversea cargo, discharged and shipped combined, according to the country in which the vessels were registered, during each of the years 1957–58 to 1959–60:—

OVERSEA CARGO DISCHARGED AND SHIPPED: COUNTRY OF REGISTRATION OF VESSELS, AUSTRALIA.

(’000 Tons.)

Vessels Registered at Ports in—	1957–58.		1958–59.		1959–60.	
	Weight.	Meas.	Weight.	Meas.	Weight.	Meas.
Commonwealth Countries—						
Australia	387	94	363	92	484	113
Hong Kong	241	40	213	40	218	68
New Zealand	593	407	540	327	617	380
United Kingdom	7,933	2,488	8,758	2,253	10,606	2,527
Other	558	163	456	182	568	164
<i>Total, Commonwealth Countries</i>	<i>9,712</i>	<i>3,192</i>	<i>10,330</i>	<i>2,894</i>	<i>12,493</i>	<i>3,252</i>
Proportion of Total %	46.1	72.5	45.2	70.0	48.9	68.6
Foreign Countries—						
Denmark	785	30	708	38	841	46
France and New Caledonia	343	37	580	55	527	81
Germany, Federal Republic of	263	91	323	81	423	141
Italy	509	68	439	59	428	58
Japan	1,251	102	1,587	131	1,539	154
Netherlands	1,025	238	1,136	260	916	322
Norway	3,734	217	3,912	207	4,117	260
Panama	1,249	21	865	12	1,259	10
Sweden	798	164	1,218	186	953	202
United States of America	288	196	244	191	305	181
Other	1,128	47	1,536	21	1,765	35
<i>Total, Foreign Countries</i>	<i>11,373</i>	<i>1,211</i>	<i>12,548</i>	<i>1,241</i>	<i>13,073</i>	<i>1,490</i>
Proportion of Total %	53.9	27.5	54.8	30.0	51.1	31.4
Grand Total	21,085	4,403	22,878	4,135	25,566	4,742

§ 7. Vessels Built and Registered.

1. **Vessels Built.**—The following table shows the number and tonnage of vessels built and registered in Australia during each of the calendar years 1956 to 1960, so far as such information can be ascertained from the Shipping Registers of the various States. However, the Merchant Shipping Act, under which vessels are registered in Australia, does not make it compulsory to register vessels under 15 tons burden if engaged in river or coastal trade. Larger vessels are also exempt from registration if not engaged in trade. Yachts and small trading vessels may be, and frequently are, registered at the request of the owners.

VESSELS BUILT AND REGISTERED IN AUSTRALIA.

Year.	Steam.			Motor.(a)			Sailing.			Total.			
	No.	Tonnage.		No.	Tonnage.		No.	Tonnage.		No.	Tonnage.		
		Gross.	Net.		Gross.	Net.		Gross.	Net.		Gross.	Net.	
1956	..	1	7,583	4,203	22	14,552	8,432	1	3	3	24	22,138	12,638
1957	..	2	15,166	8,202	25	19,211	11,164	..	..	..	27	34,377	19,366
1958	..	1	7,274	4,343	21	15,293	9,341	1	24	16	23	22,591	13,700
1959	..	1	14,039	7,145	23	12,896	7,167	..	..	..	24	26,935	14,312
1960	33	11,270	5,651	6	107	81	39	11,377	5,732

(a) Includes vessels with auxiliary motors.

2. **Vessels Registered.**—The following table shows the number and net tonnage of steam, sailing and other vessels on the register of each State and the Northern Territory at 31st December, 1960:—

VESSELS REGISTERED, 31st DECEMBER, 1960.

State or Territory.	Steam and Motor.		Sailing.				Barges, Hulks, Dredges, etc., not Self-propelled.		Total.	
	No.	Net Tons.	Propelled by Sail only.		Fitted with Auxiliary Power.		No.	Net Tons.	No.	Net Tons.
			No.	Net Tons.	No.	Net Tons.				
New South Wales ..	293	52,644	29	2,135	107	1,323	10	948	439	57,050
Victoria ..	171	175,284	48	1,094	70	1,356	26	9,403	315	187,137
Queensland ..	89	36,574	30	582	46	518	4	830	169	38,504
South Australia ..	78	31,097	10	192	55	2,413	30	4,263	173	37,965
Western Australia ..	97	11,885	209	3,153	80	1,866	5	478	391	17,382
Tasmania ..	49	12,569	42	693	107	2,551	3	690	201	16,503
Northern Territory	..	..	16	154	8	151	..	..	24	305
Australia ..	777	320,053	384	8,003	473	10,178	78	16,612	1,712	354,846

3. **World Shipping Tonnage.**—At 1st July, 1960, the total steamships, motorships and auxiliaries of 100 gross tons and upwards throughout the world amounted to 36,311, with a gross tonnage of 129,769,500. Of these totals, steamships numbered 14,265 for 73,717,500 gross tons, motorships 21,205 for 55,891,704 gross tons, and auxiliaries 841 for 160,296 gross tons. Included therein were 4,543 oil tankers of 100 gross tons and upwards, with a gross tonnage of 41,465,102. Australian steamships, motorships and auxiliaries, 330 for 619,996 gross tons, constituted 0.91 per cent. and 0.48 per cent. respectively of the total number and tonnage. This information has been derived from *Lloyd's Register of Shipping*.

§ 8. Miscellaneous.

1. **Lighthouses.**—A list of the principal lighthouses on the coast of Australia, giving details of the location, number, colour, character, period, candle-power and visibility of each light so far as particulars are available, will be found in *Transport and Communication*, Bulletin No. 46.

2. **Distances by Sea.**—The distances by sea between the ports of the capital cities of Australia and the most important ports in other countries which trade with Australia are published in the annual bulletin, *Transport and Communication*.

3. **Shipping Freight Rates.**—The *Quarterly Summary of Australian Statistics* shows a list of the ruling freight rates for general merchandise in respect of both oversea and interstate shipments. At 31st December, 1960, the rate for general merchandise from Australia to the United Kingdom and the Continent was 214s. per ton weight or measurement.

Rates for the following important particular commodities were: Butter (refrigerator), United Kingdom, 10s. 11½d. per box (56 lb.), Continent, 11s. 6½d.; meats preserved by cold process—beef, 3¼d. per lb., lamb, 4½d. per lb., mutton, 3¾d. per lb.; sugar (refined) (30th September, 1960), 326s. per ton weight; wheat (parcels), 90s. per ton weight; flour (wheaten), 105s. per ton weight; wool (greasy), 3.56d. per lb. less 7 per cent.; sheep skins, 2½d. per lb.; zinc ingots, 104s. per ton weight; copper ingots, 127s. 6d. per ton weight; lead, 111s. 6d. per ton weight; steel billets (20 ft. up to 30 ft.), 100s. per ton weight. These rates, which are expressed in sterling, are subject to an adjustment of 25½ per cent. when freight is prepaid in Australia.

Interstate rates per ton weight or measurement for general cargo at 31st December, 1960 (expressed in Australian currency) were:—Sydney–Melbourne, 155s.; Sydney–Brisbane, 155s.; Sydney–Adelaide, 180s.; Sydney–Fremantle, 235s.; Sydney–Hobart, 147s.; Sydney–Darwin, 258s. 6d.

4. **Depth of Water at Main Ports.**—A table showing the depth of water available and tides at principal ports of Australia is published in the annual bulletin, *Transport and Communication*.

5. **Shipping Casualties.**—Courts of Marine Inquiry are constituted by a magistrate assisted by skilled assessors, and, when necessary, are held at the principal port in each State and at Launceston (Tasmania). Such courts have power to deal with the certificates of officers who are found at fault. Particulars of shipping losses and casualties reported on or near the coast during each of the years 1956 to 1960 are shown in the table below.

SHIPPING CASUALTIES TO OVERSEA AND INTERSTATE STEAM AND MOTOR VESSELS: AUSTRALIA.

Year.	Shipping Losses.			Other Shipping Casualties.			Total Shipping Casualties.		
	Vessels.	Net Tons.	Lives Lost.	Vessels.	Net Tons.	Lives Lost.	Vessels.	Net Tons.	Lives Lost.
1956 ..	2	529	18	237	771,418	..	239	771,947	18
1957 ..	1	249	..	224	709,432	..	225	709,681	..
1958 ..	1	98	5	179	525,528	..	180	525,626	5
1959 ..	2	346	1	200	623,475	9	202	623,821	10
1960 ..	..	..	..	183	570,987	..	183	570,987	..

6. **Ports and Harbours.**—Information on ports and harbours will be found in Chapter XIX.—Local Government.

A report on "The Turn-round of Ships in Australian Ports" was submitted to the Commonwealth Government by Henry Basten, C.M.G., on 4th January, 1952. The report deals with all factors affecting the turn-round of ships and congestion in Australian ports and the measures that might be taken to effect improvement on both short-term and long-term bases.

B. GOVERNMENT RAILWAYS.

1. **General.**—The first steam-operated railway in Australia, between Melbourne and Port Melbourne, a distance of 2 miles, was opened on 12th September, 1854. It was owned and operated by the Melbourne and Hobson's Bay Railway Company. In the next 100 years, the mileage increased greatly and at 30th June, 1954, 26,624 route-miles (excluding several hundred miles of privately-owned line) were open for traffic. However, the operation of Australia-wide services is greatly hampered by the presence of many break-of-gauge stations, necessitated by the several gauges at present in use, although progress has been made towards the standardization of main trunk routes (*see para. 5 following*). The policy of government ownership and control of railways has been adopted in each State and at 30th June, 1960, 23,996 route-miles were owned by the State Governments and 2,252 route-miles by the Commonwealth Government. In the following tables, details of the four lines owned by the Commonwealth are grouped and shown with the totals for the various State-owned systems. Separate particulars for each Commonwealth line and more detailed statistics for all lines are shown in the annual bulletin, *Transport and Communication*.

In some States, there are privately-owned railway systems offering passenger and freight services to the public. Details of these private railways were included in Official Year Book No. 39 and previous issues, but owing to their relative unimportance and the incomplete nature of the statistics available, the series has been discontinued.

2. **Railway Communication in Australia.**—An account of the progress of railway construction in Australia since the opening of the first line in 1854 was given in Official Year Book No. 6, page 681, and in No. 22, page 259. The main ports on the mainland are connected by lines running approximately parallel to the coast and are the focal points of lines which radiate inland to the agricultural, mining and pastoral areas of the continent to a distance of up to 600 miles at some points. However, Darwin in the Northern Territory is not connected by rail to any other port. A 3 ft. 6 in. gauge railway extends southward from Darwin to Birdum, a distance of 317 miles, and from Port Augusta in South Australia a 4 ft. 8½ in. gauge railway of 217 miles extends northwards to Marree and thence as a 3 ft. 6 in. gauge of 540 miles to Alice Springs.

In recent years, besides the construction of air-conditioned passenger trains and high-capacity goods rolling stock, many new locomotives have been built and others purchased. Also, there has been a significant development of diesel-electric traction, the number of diesel-electric locomotives in service having risen from two at 30th June, 1949, to 451 at 30th June, 1960.

3. **Distances between Capital Cities.**—The distances by rail between the capital cities of Australia are published in the annual bulletin, *Transport and Communication*.

4. **Government Railways Development.**—In spite of the great extensions of State railways since 1875 and the construction of various railways by the Commonwealth Government, there are still, in some States, immense areas of country which are as yet practically undeveloped, and in which little in the nature of permanent settlement has been accomplished. The general policy of the States was to extend the existing lines inland in the form of light railways as settlement increased, and while it is true that lines which were not likely to be commercially successful in the immediate future were constructed from time to time for the purpose of encouraging settlement, the general principle that the railways should be self-supporting was kept in view.

The greatest recorded route-mileage of government railways was 27,234 at 30th June, 1941. Although short lengths of line have been opened since that date, most railway construction is being confined to the duplication and electrification of existing main lines. The closure of other lines (mainly developmental branch lines whose retention would have been uneconomic) has resulted in a considerable decrease in route-mileage. Variations in route-mileage in each State and Territory during the ten years ended 30th June, 1960, are shown in the following table:—

GOVERNMENT RAILWAYS: VARIATIONS IN ROUTE-MILEAGE, 1950 TO 1960.

State or Territory.	Route-mileage at 30th June, 1950.	Variations during Ten Years ended 30th June, 1960, due to—		Route-mileage at 30th June, 1960.
		Route Miles Opened.	Route Miles Closed.	
New South Wales	6,354	2	7	6,349
Victoria	4,446	24	421	4,049
Queensland	6,560	..	153	6,407
South Australia	3,805	229	198	3,836
Western Australia	4,706	19	151	4,574
Tasmania	613	2	77	538
Northern Territory	490	..	..	490
Australian Capital Territory ..	5	..	..	5
Australia	26,979	276	1,007	26,248

5. **Standardization of Railway Gauges.**—The first step towards uniform gauge railway communication between the capitals of the mainland States was effected in 1930 with the construction of the 4 ft. 8½ in. gauge line from Grafton to South Brisbane. The finance required for the construction was provided by the Commonwealth Government. For details of the agreement between the Commonwealth and New South Wales and Queensland, see Official Year Book No. 31, page 122.

This line is operated by the New South Wales Railways, and details of operations in New South Wales are included with those of the New South Wales system. Details of operations on the Queensland portion are included with Queensland railway statistics unless otherwise specified.

In March, 1944, the late Sir Harold Clapp, Director-General of Land Transport, Commonwealth Department of Transport, and formerly Chairman of Commissioners, Victorian Railways, was requested by the Commonwealth Government to submit a report and recommendation regarding the standardization of Australia's railway gauges on the basis of a 4 ft. 8½ in. gauge. A summary of his report and recommendations, made in March, 1945, together with an outline of the agreement between the Commonwealth Government and the States of New South Wales, Victoria and South Australia regarding the standardization of railway gauges in their respective States, was published in Official Year Book No. 37, pages 146-9. The agreement, which was signed in 1946, was ratified by the Governments of the Commonwealth, of Victoria and of South Australia, but not by the New South Wales Government. After some time had elapsed and New South Wales had failed to ratify the agreement, the Commonwealth Government decided to enter into a separate agreement with South Australia, and the necessary legislation was enacted in 1949 by each Government concerned. The Commonwealth-South Australia Agreement provides for the same standardization work to be carried out in South Australia as would have been carried out had New South Wales ratified the original Commonwealth-Three States Agreement, and that over a period of years the Commonwealth should contribute 70 per cent. and South Australia be responsible for the remaining 30 per cent. of the estimated cost.

As a further step towards standardization, a Committee consisting of members of the Federal Parliament was formed in March, 1956, to ascertain whether a scheme confined to the main trunk routes would be desirable. This Committee recommended in October, 1956, that standard gauge (4 ft. 8½ in.) lines be provided from Wodonga to Melbourne, from Broken Hill to Adelaide via Port Pirie and from Kalgoorlie to Fremantle via Perth.

Preparatory work in the field on the uniform gauge between Albury and Melbourne commenced in November, 1957. The work has been concerned with the duplication of bridges, extension of culverts and the establishment of camps. Funds for this project are being advanced by the Commonwealth to enable the work to proceed. An agreement was reached between the Commonwealth and the two States, New South Wales and Victoria, whereby the Commonwealth will meet 70 per cent. of the cost of unification and the two States will share equally the remaining 30 per cent., with the Commonwealth advancing the whole of the necessary funds initially, and the States' portion, plus interest, being repayable over 50 years. Legislation was enacted by the Commonwealth and the two State Governments in three separate Acts assented to towards the close of 1958. Estimated total cost is about £11.9 million, just over £5.7 million having been spent to 30th June, 1960.

A map showing the railway systems of Australia according to gauge appears on page 547.

6. **Mileage Open for Traffic, all Lines.**—Almost all the railways open for general traffic in Australia are owned and controlled by the State or Commonwealth Governments. Private lines have been laid down for the purpose of opening up forest lands, mining districts or sugar areas. These lines are not generally used for the conveyance of passengers or the public conveyance of goods.

The following table shows the route-mileage of Commonwealth and State lines open in each State and Territory at various periods since the inauguration of railways in Australia in 1854:—

GOVERNMENT RAILWAYS: ROUTE-MILEAGE OPEN.
(Miles.)

At 30th June—	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1855(a) ..	14	2	..	7	..	..	..	..	23
1861(a) ..	73	114	..	56	..	..	..	..	243
1871(a) ..	358	276	218	133	..	45	..	..	1,030
1881(a) ..	996	1,247	800	832	92	45	..	..	4,012
1891 ..	2,182	2,763	2,195	1,666	198	351	145	..	9,500
1901 ..	2,846	3,237	2,801	1,736	1,355	457	145	..	12,577
1911 ..	3,762	3,523	3,868	1,935	2,376	470	145	..	16,079
1921 ..	5,043	4,267	5,752	3,408	3,992	630	199	5	23,296
1931 ..	6,247	4,514	6,529	3,898	4,634	665	317	5	26,809
1941 ..	6,368	4,518	6,567	3,809	4,835	642	490	5	27,234
1951 ..	6,354	4,445	6,560	3,805	4,682	613	490	5	26,954
1960 ..	6,349	4,049	6,407	3,836	4,574	538	490	5	26,248

(a) At 31st December.

At 30th June, 1960, 262 route-miles in Victoria and 233 route-miles in New South Wales were electrified.

The next table shows for each State and Territory the length of government lines open in relation to both population and area at 30th June, 1960.

GOVERNMENT RAILWAYS: ROUTE-MILEAGE OPEN AT 30th JUNE, 1960.
(Miles.)

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Route-mileage open ..	6,349	4,049	6,407	3,836	4,574	538	490	5	26,248
Per 1,000 of population ..	1.66	1.40	4.38	4.06	6.26	1.55	22.27	0.10	2.55
Per 1,000 square miles ..	20.55	46.01	9.61	10.09	4.69	20.69	0.94	5.32	8.83

7. **Classification of Lines according to Gauge, at 30th June, 1960.**—The next table shows the route-mileage of government railways open in each State and Territory at 30th June, 1960, classified according to gauge.

GOVERNMENT RAILWAYS: GAUGES, AT 30th JUNE, 1960.
(Route-miles.)

Gauge.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
5 ft. 3 in. ..	(a) 241	4,015	..	1,674	..	..	..	..	5,930
4 ft. 8½ in. ..	6,108	..	(b) 69	(c) 871	(c) 454	..	..	(c) 5	7,507
3 ft. 6 in. ..	..	..	6,308	(d) 1,291	4,120	538	(c) 490	..	12,747
2 ft. 6 in. ..	..	34	..	..	..	..	..	..	34
2 ft. 0 in. ..	..	..	30	..	..	..	..	..	30
Total ..	6,349	4,049	6,407	3,836	4,574	538	490	5	26,248

(a) Portion of Victorian system. (b) Queensland section of Grafton-South Brisbane Uniform Gauge Line. (c) Portion of Commonwealth system. (d) Includes 432 miles of Commonwealth system.

8. **Summary of Operations.**—In the following table a summary is shown of the operations of government railways open in Australia during 1959-60:—

GOVERNMENT RAILWAYS: SUMMARY OF OPERATIONS, 1959-60.

Particulars.	Commonwealth Railways.	State Railways.	Total.
Route-mileage miles	2,252	23,996	26,248
Gross earnings £'000	5,327	188,836	194,163
" " per revenue train-mile pence	597	501	503
Working expenses £'000	(a) 4,154	189,981	194,135
" " per revenue train-mile pence	465	504	503
Net earnings £'000	(a) 1,173	—1,145	28
" " per revenue train-mile pence	131	—3	..
Revenue train-miles '000	2,141	90,518	92,659
Passenger-journeys '000	275	478,440	478,715
Goods and livestock carried '000 tons	1,482	49,690	51,172
Average number of employees(b)	2,648	133,107	135,755
" wages and salaries paid £	1,073	1,051	1,051

(a) Excludes amounts paid for Commissioner's salary, government contributions under the Superannuation Act, Accident and Insurance Fund and proportion of salaries of Auditor-General's staff—total, £123,367. (b) Excludes construction staff except in respect of Victoria.

NOTE.—Minus sign (—) denotes loss.

A graph showing the route-mileage and traffic of government railways from 1870 to 1959-60 appears on page 548.

9. *Summary, States.*—The following table shows, for government railways in Australia, particulars of the mileage open, passengers and goods carried and revenue train-miles run during 1959–60.

GOVERNMENT RAILWAYS: SUMMARY, STATES, 1959–60.

Railway System.	Mileage Open.(a)		Passenger-journeys. (‘000.)	Goods and Livestock Carried. (‘000 tons.)	Revenue Train-miles. (‘000.)
	Route-miles.	Track-miles.			
New South Wales	6,108	8,507	254,590	22,127	36,781
Victoria	4,290	5,711	158,294	9,687	18,282
Queensland	6,407	7,462	32,347	8,116	19,056
South Australia	2,533	3,156	17,038	4,036	6,887
Western Australia	4,120	4,726	13,879	4,533	7,962
Tasmania	538	633	2,292	1,191	1,550
Commonwealth	2,252	2,454	275	1,482	2,141
Australia	26,248	32,649	478,715	51,172	92,659

(a) At 30th June.

10. *Gross Earnings.*—(i) *General.* Gross earnings are composed of earnings from (a) coaching traffic, including the carriage of mails, horses, parcels, etc., by passenger trains; (b) carriage of goods and livestock; and (c) rents and miscellaneous items. State Government grants are excluded. Details of these grants made during 1959–60 are shown in para. 13, page 538.

(ii) *Coaching, Goods and Miscellaneous Earnings.* (a) *Summary.* In the following table, gross earnings are shown for the years 1957–58 to 1959–60, together with earnings per average route-mile worked and per revenue train-mile:—

GOVERNMENT RAILWAYS: GROSS EARNINGS.(a)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	C'wealth.	Aust.
GROSS EARNINGS. (£'000.)								
1957–58 ..	74,433	35,954	34,636	13,160	12,788	2,569	4,605	178,145
1958–59 ..	75,930	38,150	36,169	12,856	13,516	2,707	4,817	184,145
1959–60 ..	83,563	39,190	35,671	12,758	14,846	2,808	5,327	194,163
GROSS EARNINGS PER AVERAGE ROUTE-MILE WORKED. (£.)								
1957–58 ..	12,195	8,168	5,365	5,193	3,106	4,492	2,041	6,738
1958–59 ..	12,441	8,756	5,628	5,075	3,283	4,782	2,139	6,987
1959–60 ..	13,681	9,130	5,562	5,037	3,603	4,978	2,365	7,388
GROSS EARNINGS PER REVENUE TRAIN-MILE. (Pence.)								
1957–58 ..	510.11	470.15	436.78	446.05	418.89	393.28	578.47	473.52
1958–59 ..	517.78	496.89	444.96	447.80	420.87	421.99	572.76	484.13
1959–60 ..	545.26	514.47	449.26	444.59	447.53	434.79	596.86	502.90

(a) Excludes government grants; see para. 13, page 538.

(b) *Distribution.* The following table shows gross earnings for the year 1959–60 classified according to the three main sources of earnings.

GOVERNMENT RAILWAYS: DISTRIBUTION OF GROSS EARNINGS(a), 1959-60.

Railway System.	Gross Earnings. (£'000.)			Proportion of Total. (Per Cent.)		
	Coaching.	Goods and Livestock.	Miscellaneous.	Coaching.	Goods and Livestock.	Miscellaneous.
New South Wales ..	22,131	57,598	3,834	26.48	68.93	4.59
Victoria ..	13,537	22,876	2,777	34.54	58.37	7.09
Queensland ..	4,637	30,046	988	13.00	84.23	2.77
South Australia ..	2,043	9,840	875	16.01	77.12	6.87
Western Australia ..	1,622	12,251	973	10.93	82.52	6.55
Tasmania ..	190	2,537	81	6.75	90.34	2.91
Commonwealth ..	993	3,963	371	18.63	74.40	6.97
Australia ..	45,153	139,111	9,899	23.25	71.64	5.11

(a) Excludes government grants; see para. 10 (i) on p. 536.

11. *Working Expenses.*—(i) *General.* In comparing the working expenses of the several States and Territories, allowance should be made for the variation of gauges and of physical and traffic conditions, not only on the different systems of the State and Commonwealth railways, but also on different portions of the same system. When traffic is light, the proportion of working expenses to earnings is naturally greater than when traffic is heavy; and this is especially true in Australia, where ton-mile rates are in many cases based on a tapering principle—i.e., a lower rate per ton-mile is charged upon merchandise from remote interior districts—and where on many of the lines there is but little back loading. Density or sparseness of population, area to be served, and alternative methods of transport available are other factors to be taken into account.

Working expenses, wherever presented in the Railways section of this chapter, include reserves for depreciation in South Australia, Western Australia and Tasmania but exclude interest, sinking fund, exchange and certain other payments (see para. 13 following).

(ii) *Working Expenses.* The following table shows the total working expenses, the ratio of working expenses to gross earnings and working expenses per average route-mile worked and per revenue train-mile for the years 1957-58 to 1959-60.

GOVERNMENT RAILWAYS: WORKING EXPENSES.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	C'wealth. (a)	Aust.
TOTAL WORKING EXPENSES. (£'000.)								
1957-58 ..	72,534	38,174	36,894	15,953	16,091	3,218	3,611	186,475
1958-59 ..	71,102	38,119	37,504	15,102	16,307	3,215	3,647	184,996
1959-60 ..	76,491	39,542	38,353	15,325	16,907	3,363	4,154	194,135
RATIO OF WORKING EXPENSES TO GROSS EARNINGS. (Per Cent.)								
1957-58 ..	97.45	106.17	106.52	121.23	125.83	125.24	78.43	104.68
1958-59 ..	93.64	99.92	103.69	117.47	120.65	118.79	75.72	100.46
1959-60 ..	91.54	100.89	107.52	120.11	113.88	119.77	77.98	99.98
WORKING EXPENSES PER AVERAGE ROUTE-MILE WORKED. (£.)								
1957-58 ..	11,884	8,672	5,715	6,296	3,908	5,625	1,601	7,053
1958-59 ..	11,650	8,749	5,836	5,962	3,961	5,680	1,620	7,019
1959-60 ..	12,523	9,213	5,980	6,050	4,103	5,963	1,845	7,387
WORKING EXPENSES PER REVENUE TRAIN-MILE. (Pence.)								
1957-58 ..	497.09	499.18	465.25	540.73	527.06	492.53	453.67	495.66
1958-59 ..	484.85	496.49	461.38	526.04	507.78	501.28	433.68	486.36
1959-60 ..	499.12	519.09	483.04	534.03	509.63	520.72	465.43	502.83

(a) See para. 8, note (a), p. 535.

(iii) *Distribution.* The following table shows the total working expenses for the year 1959-60 classified according to the four main expenditure headings.

GOVERNMENT RAILWAYS: DISTRIBUTION OF WORKING EXPENSES, 1959-60.
(£'000.)

Railway System.	Mainten- ance of Way and Works.	Motive Power.(a)	Traffic.	Other Charges.	Total Working Expenses.
New South Wales	13,412	28,331	18,582	16,166	76,491
Victoria	8,081	11,494	10,671	9,296	39,542
Queensland	10,294	17,417	8,536	2,106	38,353
South Australia(b)	3,317	6,615	3,654	1,739	15,325
Western Australia(b)	2,738	7,184	3,520	3,465	16,907
Tasmania(b)	818	1,309	757	479	3,363
Commonwealth(c)	1,497	1,469	843	345	4,154
Australia	40,157	73,819	46,563	33,596	194,135

(a) Includes maintenance of rolling stock. (b) Includes provision of reserves for depreciation.
(c) See para. 8, note (a), p. 535.

12. *Net Earnings.*—The following table shows, for the years 1957-58 to 1959-60, net earnings, i.e., the excess of gross earnings over working expenses and the amount of such net earnings per average route-mile worked and per revenue train-mile.

GOVERNMENT RAILWAYS: NET EARNINGS.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	C'wealth. (a)	Aust.
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TOTAL NET EARNINGS.
(£'000.)

1957-58 ..	1,899	— 2,220	— 2,258	— 2,793	— 3,303	— 649	994	— 8,330
1958-59 ..	4,828	— 31	— 1,335	— 2,246	— 2,791	— 508	1,170	— 851
1959-60 ..	7,072	— 352	— 2,682	— 2,567	— 2,061	— 555	1,173	— 28

NET EARNINGS PER AVERAGE ROUTE-MILE WORKED.
(£.)

1957-58 ..	311	— 504	— 350	— 1,103	— 802	— 1,133	440	— 315
1958-59 ..	791	— 7	— 208	— 837	— 678	— 898	519	— 32
1959-60 ..	1,158	— 83	— 418	— 1,013	— 500	— 985	520	— 1

NET EARNINGS PER REVENUE TRAIN-MILE.
(Pence.)

1957-58 ..	13.02	—29.03	—28.47	—94.68	—108.17	— 99.25	124.80	—22.14
1958-59 ..	32.93	0.40	—16.42	—78.24	— 86.91	— 79.29	139.08	— 2.23
1959-60 ..	46.14	— 4.62	—33.78	—89.44	— 62.10	— 85.93	131.43	0.07

(a) See para. 8, note (a), p. 535.
NOTE.—Minus sign (—) denotes loss.

A graph showing the gross and net earnings and working expenses from 1870 to 1959-60 appears on page 549.

13. *Net Earnings, Grants to Railways, Interest, Sinking Fund, Surplus or Deficit, 1959-60.*—The following table shows, for each railway system for the year 1959-60, (i) net earnings as in para. 12 above, (ii) State grants and other items credited to railways accounts, (iii) loan interest, exchange, sinking fund, etc., payments charged against the accounts, and (iv) the net surplus or deficit after these items have been taken into account. Particulars of items (ii) to (iv) are not included in the preceding tables in this section.

The figures shown in this table accord with those published in the Annual Reports of the Railways Commissioners of the several systems. Because of the differences in Governmental practice in regard to costs other than operative charged against railways accounts,

compensation for non-paying and developmental lines, etc., and the inclusion in some railways finances of the operations of ancillary transport services, direct comparison can not, of course, be made between the results shown in the table.

GOVERNMENT RAILWAYS: SURPLUS OR DEFICIT AT 30th JUNE, 1960.
(£.)

System.	Net Earnings—Excess of Gross Earnings over Working Expenses.(a)	Plus Grants and other Income.	Less Other Expenses Charged to Railways.					Surplus (+) or Deficit (—).
			Loan Interest and Exchange.	Sinking Fund.	Loan Management Expenses.	Other.	Total.	
State—								
N.S.W. ..	7,071,279	(b)1,800,000	10,627,970	2,176,300	175,230	..	12,979,500	— 4,108,221
Victoria ..	— 352,016	(c) 8,446	3,809,574	208,036	..	(d)32,624	4,050,234	e— 4,393,804
Queensland ..	—2,682,240	(f) 54,703	3,765,211	..	..	g 194,773	3,959,984	h— 6,587,521
S. Australia ..	—2,566,488	(i)4,200,000	2,016,472	..	..	(j)89,031	2,105,503	e— 471,991
W. Australia ..	—2,060,135	..	2,336,499	..	..	(k) 57	2,336,556	e— 4,396,691
Tasmania ..	— 555,104	..	377,789	..	..	..	377,789	— 932,893
Total States ..	—1,144,704	6,063,149	22,933,515	2,384,336	175,230	316,485	25,809,566	—20,891,121
Commonwealth	1,172,890	..	368,166	208,140	32	123,367	699,705	+ 473,185
Australia ..	28,186	6,063,149	23,301,681	2,592,476	175,262	439,852	26,509,271	—20,417,936

(a) See para. 12, page 538. (b) Grants to meet losses on country development lines, £1,000,000 and to subsidize payments due from superannuation account, £800,000. (c) Kerang-Koondrook Tramway recoup from Treasury. (d) Net loss on road motor services not included in previous pages. (e) Includes road motor services.

(f) Adjustment for net loss on Queensland portion of Uniform Gauge Railway as included in foregoing tables. (g) Interest on unopened lines. (h) Excludes Queensland portion of Uniform Gauge Railway. (i) Grants towards working expenses, £3,400,000 and debt charges, £800,000. (j) Net loss on road motors not included in foregoing tables, £439, and interest and repayment under Railways Standardization Agreement, £88,592. (k) Net loss on road motor services. (l) Includes salary of Railway Commissioner, Government contributions under Superannuation Act, expenditure from Railway Accident and Insurance Fund and proportion of salaries of Auditor-General's staff.

Note.—For further information on railways finance, in particular expenditure from loan and other funds, see Chapter XXI, Public Finance of this Year Book. See also the Reports of the several Railways Commissioners.

14. Traffic.—(i) *General.* Reference has already been made to the differing conditions of the traffic on many of the lines. These conditions differ not only in the several State and Commonwealth systems, but also on different lines in the same system, and apply to both passenger and goods traffic. By far the greater part of the population of Australia is located in a fringe of country near the coast, more especially in the eastern and southern districts, and a large proportion of the railway traffic between the chief centres of population is therefore open to competition from road and air transport.

The following table shows particulars of railway traffic for the years 1957–58 to 1959–60:—

GOVERNMENT RAILWAYS: TRAFFIC.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	C'wealth.	Aust.
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PASSENGER-JOURNEYS (SUBURBAN AND COUNTRY).
(‘000.)

1957–58 ..	258,651	167,662	33,665	17,564	14,106	2,444	238	494,330
1958–59 ..	254,055	163,483	33,457	16,805	14,615	2,344	259	485,018
1959–60 ..	254,590	158,294	32,347	17,038	13,879	2,292	275	478,715

PASSENGER-JOURNEYS (SUBURBAN AND COUNTRY) PER AVERAGE ROUTE-MILE WORKED.
(Number.)

1957–58 ..	42,381	38,088	5,214	6,931	3,426	4,273	106	18,696
1958–59 ..	41,628	37,522	5,207	6,634	3,550	4,141	115	18,404
1959–60 ..	41,681	36,881	5,044	6,726	3,369	4,065	122	18,214

GOVERNMENT RAILWAYS: TRAFFIC—*continued.*

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	C'wealth.	Aust.
GOODS AND LIVESTOCK CARRIED. (^{'000} Tons.)								
1957-58 ..	a 18,502	8,892	7,766	4,146	3,589	1,096	1,259	45,250
1958-59 ..	19,700	9,295	8,373	4,207	3,913	1,138	1,405	48,031
1959-60 ..	22,127	9,687	8,116	4,036	4,533	1,191	1,482	51,172
GOODS AND LIVESTOCK CARRIED PER AVERAGE ROUTE-MILE WORKED. (Tons.)								
1957-58 ..	3,032	2,020	1,203	1,636	872	1,916	558	1,711
1958-59 ..	3,228	2,133	1,303	1,661	950	2,010	624	1,823
1959-60 ..	3,623	2,257	1,266	1,594	1,100	2,111	658	1,947

(a) Partly estimated.

(ii) *Passenger Traffic.* With the exception of the Commonwealth Railway Systems, which operate only country services, all systems provide both suburban and country passenger services. Traffic classed as "suburban" moves between stations within a classified suburban area around each capital city, whilst traffic classed as "country" originates or terminates at stations outside of this suburban area. Particulars of suburban and country passenger traffic are shown separately in the two tables following.

(a) *Suburban Passenger Traffic.* The following table shows a summary of suburban passenger operations for the years 1957-58 to 1959-60. Most of the suburban services in New South Wales and Victoria are operated within electrified areas.

GOVERNMENT RAILWAYS: SUBURBAN PASSENGER SUMMARY.

Year.	Suburban Passenger-journeys. (^{'000.})	Suburban Passenger Train-miles. (^{'000.})	Suburban Passenger-miles. (^{'000.})	Average Number of Passengers per Train-mile.	Average Mileage per Passenger-journey. (Miles.)	Suburban Passenger Earnings.			
						Gross. (£'000.)	Per Passenger-journey. (Pence.)	Per Passenger-mile. (Pence.)	Per Passenger Train-mile. (Pence.)
NEW SOUTH WALES.									
1957-58	a 244,188	11,158	} (b)	(b)	(b) {	(b)	(b)	(b)	(b)
1958-59	239,738	11,175				12,027	12.04	(b)	258
1959-60	239,805	11,212				12,222	12.23	(b)	262
VICTORIA.									
1957-58	162,632	8,353	1,433,794	172	8.82	7,613	11.24	1.27	219
1958-59	158,613	8,310	1,364,884	164	8.61	8,511	12.88	1.50	246
1959-60	153,660	7,999	1,349,319	169	8.79	8,826	13.78	1.57	265
QUEENSLAND.									
1957-58	28,524	2,082	} (b)	(b)	(b) {	890	7.49	(b)	103
1958-59	28,398	2,127				889	7.52	(b)	100
1959-60	27,548	2,131				865	7.54	(b)	97
SOUTH AUSTRALIA.									
1957-58	16,390	2,065	131,179	80	8.00	702	10.28	1.28	82
1958-59	15,704	2,087	125,391	60	7.98	706	10.79	1.35	81
1959-60	15,997	2,134	128,183	60	8.01	792	11.89	1.48	89

NOTE.—For footnotes see next page.

GOVERNMENT RAILWAYS: SUBURBAN PASSENGER SUMMARY—*continued.*

Year.	Suburban Passenger-journeys.	Suburban Passenger Train-miles.	Suburban Passenger-miles.	Average Number of Passengers per Train-mile.	Average Mileage per Passenger-journey.	Suburban Passenger Earnings.			
						Gross.	Per Passenger-journey.	Per Passenger-mile.	Per Passenger Train-mile.
	('000.)	('000.)	('000.)		(Miles.)	(£'000.)	(Pence.)	(Pence.)	(Pence.)

WESTERN AUSTRALIA.

1957-58	13,353	1,323	91,755	69	6.87	420	7.54	1.10	76
1958-59	13,880	1,320	93,958	71	6.77	434	7.50	1.11	79
1959-60	13,171	1,343	90,003	67	6.83	478	8.70	1.27	85

TASMANIA.

1957-58	2,122	204	12,895	63	6.08	54	6.14	1.01	64
1958-59	2,092	210	12,632	60	6.04	53	6.11	1.01	61
1959-60	2,031	206	12,438	60	6.12	51	5.98	0.98	59

(a) Estimated.

(b) Not available.

NOTE.—Train-miles refer to revenue mileages only.

(b) *Country Passenger Traffic.* The following table shows a summary of country passenger operations for the years 1957-58 to 1959-60.

GOVERNMENT RAILWAYS: COUNTRY PASSENGER SUMMARY.

Year.	Country Passenger-journeys.	Country Passenger Train-miles. (a)	Country Passenger-miles.	Average Number of Passengers per Train-mile.	Average Mileage per Passenger-journey.	Country Passenger Earnings.			
						Gross.	Per Passenger-journey.	Per Passenger-mile.	Per Passenger Train-mile.
	('000.)	('000.)	('000.)		(Miles.)	(£'000.)	(Pence.)	(Pence.)	(Pence.)

NEW SOUTH WALES.

1957-58	14,463	9,762	(b)	(b)	(b)	(b)	(b)	(b)	(b)
1958-59	14,317	9,497				6,984	117.08	(b)	169
1959-60	14,785	9,613				6,570	106.64	(b)	158

VICTORIA.

1957-58	5,030	4,682	418,012	89	83.10	3,493	166.64	2.01	179
1958-59	4,870	4,699	414,539	88	85.12	3,466	170.80	2.01	177
1959-60	4,634	4,588	394,690	86	85.16	3,291	170.44	2.00	172

QUEENSLAND.

1957-58	(c) 5,141	4,935	(b)	(b)	(b)	2,560	119.53	(b)	118
1958-59	(c) 5,059	4,824				2,452	116.31	(b)	116
1959-60	(c) 4,799	4,728				2,273	113.70	(b)	110

SOUTH AUSTRALIA.

1957-58	1,174	2,112	112,781	52	96.05	803	164.18	1.71	89
1958-59	1,101	2,058	106,506	51	96.70	778	169.55	1.75	89
1959-60	1,041	2,045	105,386	50	101.31	806	185.89	1.83	93

WESTERN AUSTRALIA.

1957-58	753	1,565	80,171	51	106.41	670	213.51	2.01	103
1958-59	735	1,591	79,155	50	107.64	653	213.23	1.98	99
1959-60	708	1,504	77,450	51	109.32	666	225.56	2.06	106

NOTE.—For footnotes see next page.

GOVERNMENT RAILWAYS: COUNTRY PASSENGER SUMMARY—*continued.*

Year.	Country Passenger-journeys. (‘000.)	Country Passenger Train-miles. (a) (‘000.)	Country Passenger-miles. (‘000.)	Average Number of Passengers per Train-mile.	Average Mileage per Passenger-journey. (Miles.)	Country Passenger Earnings.			
						Gross. (£’000.)	Per Passenger-journey. (Pence.)	Per Passenger-mile. (Pence.)	Per Passenger Train-mile. (Pence.)

TASMANIA.									
1957–58	322	367	14,471	37	44.91	91	67.53	1.50	55
1958–59	252	252	13,361	41	53.03	86	81.78	1.54	63
1959–60	261	251	13,805	42	52.92	86	79.07	1.49	63

COMMONWEALTH.(d)

1957–58	238	718	81,038	113	339.63	736	740.52	2.18	247
1958–59	259	781	80,910	108	312.92	739	685.90	2.19	236
1959–60	275	783	84,371	106	307.57	749	654.89	2.13	225

(a) Excludes mixed-train miles. (b) Not available. (c) Traffic originating on the 3 ft. 6 in. gauge system and continuing on the Uniform Gauge Railway has been counted once only. (d) Railways controlled by Commonwealth Government.

NOTE.—Train-miles refer to revenue mileages only.

(iii) *Freight Traffic.* (a) *Commodities Carried and Earnings.* The following table shows the quantities of various commodities carried on the various systems and the earnings derived during 1959–60.

GOVERNMENT RAILWAYS: COMMODITIES CARRIED AND EARNINGS, 1959–60.

Railway System.	Coal, Coke and Briquettes.	Other Minerals. (a)	Agricultural Produce. (b)	Wool.	Live-stock.	All Other Commodities.	Total.
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QUANTITY CARRIED. (‘000 Tons.)							
New South Wales ..	9,555	1,810	2,533	253	631	7,345	22,127
Victoria ..	2,452	124	2,082	151	407	4,471	9,687
Queensland(c) ..	1,576	(d) 1,003	2,879	58	740	(e) 1,860	8,116
South Australia ..	130	1,149	884	45	243	1,585	4,036
Western Australia ..	566	271	1,853	68	161	1,614	4,533
Tasmania ..	322	34	35	4	35	761	1,191
Commonwealth ..	726	194	25	6	109	422	1,482
Australia ..	15,327	4,585	10,291	585	2,326	18,058	51,172

FREIGHT EARNINGS.
(£’000.)

New South Wales ..	(f)	(f)	(f)	(f)	3,676	(f)	57,598
Victoria ..	3,231	171	4,728	695	1,397	12,654	22,876
Queensland(c) ..	2,919	(d) 2,929	6,082	1,066	3,765	e 13,285	30,046
South Australia ..	120	3,126	1,441	250	777	4,126	9,840
Western Australia ..	994	563	3,606	415	465	6,208	12,251
Tasmania ..	650	46	83	17	94	1,647	2,537
Commonwealth ..	414	339	128	33	266	2,783	3,963
Australia ..	(f)	(f)	(f)	(f)	10,440	(f)	139,111

(a) Includes sand and gravel. (b) Includes wheat and fruit. (c) Includes Queensland portion of Uniform Gauge Railway. Tonnages carried over both systems have been counted once only. (d) Includes cement. (e) Excludes cement. (f) Not available.

(b) *Freight Summary.* A summary of freight traffic on each railway system for each of the years 1957-58 to 1959-60 is shown in the following table.

GOVERNMENT RAILWAYS: FREIGHT SUMMARY.

Year.	Revenue Goods Train-miles. (a)	Revenue Net Ton-miles. (c)	Average Train Load (Paying Traffic). (Tons.)	Average Haul per Ton. (Miles.)	Goods and Livestock Earnings.				Density of Traffic. (b)
					Gross. (£'000.)	Per Average Route-mile Worked. (£.)	Per Revenue Net Ton-mile. (Pence.)	Per Revenue Goods Train-mile. (Pence.)	
	('000.)	('000.)	(Tons.)	(Miles.)	(£'000.)	(£.)	(Pence.)	(Pence.)	
NEW SOUTH WALES.									
1957-58	13,290	2,571,166	186	139	48,229	7,902	4.50	837	421,295
1958-59	13,710	2,735,635	194	139	50,524	8,279	4.43	859	448,244
1959-60	15,169	3,215,560	202	146	57,598	9,430	4.30	925	526,450
VICTORIA.									
1957-58	5,286	1,260,136	238	142	20,849	4,736	3.98	944	286,265
1958-59	5,394	1,352,516	250	146	22,126	5,078	3.93	982	310,424
1959-60	5,672	1,384,773	244	143	22,876	5,330	3.96	966	322,641
QUEENSLAND.(d)									
1957-58	10,304	1,326,030	144	177	27,974	4,380	5.06	578	207,614
1958-59	10,876	1,462,621	120	181	29,493	4,639	4.84	582	230,080
1959-60	10,561	1,515,242	126	196	29,420	4,637	4.66	586	238,846
SOUTH AUSTRALIA.									
1957-58	2,638	611,032	214	147	10,302	4,065	4.05	867	241,133
1958-59	2,501	605,377	224	144	10,054	3,969	3.99	893	238,996
1959-60	2,479	596,311	224	148	9,840	3,885	3.96	886	235,417
WESTERN AUSTRALIA.									
1957-58	4,440	572,176	129	159	10,506	2,552	4.41	568	138,979
1958-59	4,797	632,284	132	162	11,243	2,731	4.27	563	153,579
1959-60	5,115	705,245	138	156	12,251	2,974	4.17	575	171,176
TASMANIA.									
1957-58	919	102,164	105	93	2,290	4,004	5.38	566	178,609
1958-59	913	110,447	110	97	2,426	4,287	5.27	580	195,136
1959-60	929	118,632	116	100	2,537	4,498	5.13	597	210,340
COMMONWEALTH.(e)									
1957-58	918	341,721	286	272	3,265	1,447	2.29	655	151,472
1958-59	960	394,346	311	281	3,476	1,543	2.12	658	175,109
1959-60	1,084	437,963	326	296	3,963	1,760	2.17	708	194,478

(a) Excludes mixed train-miles. (b) Total ton-miles per average route-mile worked. (c) Partly estimated. (d) Excludes Queensland portion of Grafton-South Brisbane (Uniform Gauge) Line. (e) Railways controlled by the Commonwealth Government.

15. **Rolling Stock.**—The following table shows the number of rolling stock of Government railways at 30th June, 1960.

GOVERNMENT RAILWAYS: ROLLING STOCK(a) AT 30th JUNE, 1960.

Railway System.	Locomotives.				Coaching Stock.(b)	Goods Stock.	Service Stock.
	Steam.	Diesel-electric.	Other.	Total.			
New South Wales ..	1,009	106	45	1,160	3,691	24,040	849
Victoria ..	354	87	68	509	(c) 2,424	20,995	(d) 1,635
Queensland ..	743	63	7	813	1,491	25,371	2,036
South Australia ..	225	52	..	277	(c) 679	7,855	(d) 467
Western Australia ..	323	67	10	400	611	11,396	993
Tasmania ..	57	32	17	106	142	(e) 2,699	137
Commonwealth ..	64	44	..	108	189	2,087	484
Australia ..	2,775	451	147	3,373	(f) 9,287	94,443	(f) 6,602

(a) Included in capital account. (b) Includes all brake vans. (c) Excludes 60 interstate coaching stock owned jointly by Victoria and South Australia. (d) Excludes one dynamometer car owned jointly by Victoria and South Australia. (e) Includes 83 privately-owned goods stock vehicles. (f) Includes stock owned jointly by Victoria and South Australia.

16. **Accidents.**—The following table shows particulars of the number of persons killed or injured through train accidents and the movement of rolling stock on the government railways of Australia during 1959–60:—

GOVERNMENT RAILWAYS: ACCIDENTS(a), 1959-60.

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	C'wth.	Aust.
Persons killed ..	45	58	17	7	11	5	2	145
Persons injured ..	852	644	169	80	191	16	12	1,964

(a) Excludes accidents to railway employees.

17. **Consumption of Coal, Oil and Petrol.**—The following table shows the quantities of coal, oil and petrol consumed by the various government railways during 1959–60:—

GOVERNMENT RAILWAYS: COAL, OIL AND PETROL CONSUMED, 1959-60.

Railway System.	Coal.		Oil.				Petrol for Rail Cars.
	Locomotives.	Other Purposes.	Diesel Oil.(a)	Fuel Oil.(b)	Lubrication.	Other Purposes.	
	'000 tons.	'000 tons.	'000 gal.	'000 gal.	'000 gal.	'000 gal.	'000 gal.
New South Wales ..	1,021	14	12,104	5,071	716	801	(c)
Victoria ..	101	2	8,681	9,533	383	1,765	..
Queensland ..	500	12	6,206	..	267	189	27
South Australia ..	79	5	5,468	6,970	(d)	(d)	77
Western Australia ..	285	7	3,414	66	303	905	46
Tasmania ..	16	(e)	1,334	..	35	129	..
Commonwealth ..	(f)	(g)	3,883	..	94	464	6
Australia ..	2,002	40	41,090	21,640	(h) 1,798	(h) 4,253	156

(a) Used in internal combustion engines of locomotives and rail cars. (b) Used in oil-fired furnaces of steam locomotives. (c) 422 gallons. (d) Not available. (e) 377 tons. (f) 53 tons. (g) 255 tons. (h) Excludes South Australia.

18. **Staff Employed and Salaries and Wages Paid.**—The following table shows details of the average staff employed and the salaries and wages paid by the government railways of Australia during 1959–60.

GOVERNMENT RAILWAYS: AVERAGE NUMBER OF EMPLOYEES AND SALARIES AND WAGES PAID, 1959-60.

Railway System.	Operating Staff.			Construction Staff.			Total Salaries and Wages Paid (£'000.)	Average Earnings Per Employee (£.)
	Salaried.	Wages.	Total.	Salaried.	Wages.	Total.		
New South Wales ..	9,205	41,131	50,336	..	25	25	54,666	1,085
Victoria ..	(a) 5,329	a 24,144	a 29,473	(b)	(b)	(b)	31,068	1,054
Queensland(c) ..	4,445	24,121	28,566	43	804	847	30,537	1,038
South Australia ..	1,820	7,561	9,381	5	860	865	10,576	1,032
Western Australia ..	1,963	10,994	12,957	(d)	(d)	(d)	12,596	972
Tasmania ..	366	2,028	2,394	23	173	196	2,466	952
Commonwealth ..	402	2,246	2,648	..	..	..	2,843	1,073
Australia ..	e 23,530	e112,225	e135,755	71	1,862	1,933	144,752	1,052

(a) Includes construction staff. (b) Included with operating staff. (c) Excludes Queensland portion of Uniform Gauge Railway. (d) Construction work is carried out by private contractors and the staff engaged is therefore not under the control of the Railway Commissioner. (e) Includes construction staff, Victoria.

C. TRAMWAY, TROLLEY-BUS AND OMNIBUS SERVICES.

1. **Systems in Operation.**—(i) *Tramway and Trolley-bus.* Since 1st April, 1947, all systems have been operated by government or municipal authorities. During the year 1959–60, tramway systems were in operation in the following cities—Sydney, Melbourne, Bendigo, Ballarat, Brisbane, Adelaide, and Hobart. Trolley-bus services operated in Brisbane, Adelaide, Perth, Hobart and Launceston. All systems were electric.

In many parts of Australia, private lines used for special purposes in connexion with the timber, mining, sugar, or other industries are often called tramways, but they are more properly railways and the traffic on them has nothing in common with that of the street tramways for the conveyance of passengers, which are dealt with in the present section.

(ii) *Motor Omnibus.* Government and municipal authorities operate certain services and the others are run by private operators. Statistics are collected for government and municipal omnibus services located in all State capital cities, Canberra, Newcastle, Maryborough, Rockhampton, Fremantle, Eastern Goldfield's area of Western Australia and in respect of country road services operated by the Western Australian Government Railways. In Sydney, the government tramway system has now been replaced by omnibus services and in Perth the Metropolitan Passenger Transport Trust has acquired a number of formerly privately owned metropolitan services.

Particulars of motor omnibus services under the control of private operators are recorded in the States of New South Wales, Victoria, South Australia and Western Australia. In New South Wales particulars of private services are compiled for the Sydney Metropolitan and Newcastle transport district and the city of Greater Wollongong. In Victoria they relate to the Melbourne Metropolitan area only, and in South Australia to services licensed by the Metropolitan Transport Trust and the Transport Control Board. In Western Australia, particulars of all private services throughout the State are included.

2. **Government and Municipal Services.**—(i) *Summary of Operations, States.* Because of the development in recent years of the various forms of public road transport under the control of single authorities, and the gradual replacement of tramway services by motor

omnibus services, it is no longer possible to obtain separate statistics for all phases of the activities of each form of transport, particularly financial operations. In this section, therefore, statistics of public tramway, trolley-bus and motor omnibus services are combined in single tables with separate details shown for each form of transport where possible. For tramway services, there were, at 30th June, 1960, 270 route miles of 4 ft. 8½ in. gauge and 5 route miles of 3 ft. 6in. gauge.

The following table gives a summary of the operations of tramway, trolley-bus and omnibus systems controlled by Government and Municipal authorities, for 1959–60.

**TRAMWAY, TROLLEY-BUS AND OMNIBUS SERVICES: GOVERNMENT
AND MUNICIPAL, 1959–60.**

Particulars.	N.S.W. (a)	Vic.	Qld.	S.A.	W.A.	Tas.	A.C.T.	Aust.
Route-miles at 30th June—								
Tram miles	32	165	66	7	..	5	..	275
Trolley-bus .. .. "	..	..	20	23	22	27	..	92
Omnibus "	539	58	430	107	3,799	785	55	5,773
Vehicle miles—								
Tram '000	4,500	20,585	8,086	616	..	592	..	34,379
Trolley-bus .. .. "	..	..	1,098	1,555	1,194	1,597	..	5,444
Omnibus "	41,005	5,836	5,741	9,782	14,303	3,934	1,154	81,755
Rolling Stock at 30th June—								
Tram No.	258	830	367	30	..	29	..	1,514
Trolley-bus .. .. "	..	..	36	56	75	79	..	246
Omnibus "	1,638	210	268	364	450	172	63	3,165
Passenger journeys—								
Tram '000	45,173	184,069	80,670	3,001	..	27,979	..	758,676
Trolley-bus .. .. "	..	..	11,081	7,562	6,760	{	..	
Omnibus "	237,936	31,286	30,102	47,605	41,583		3,869	
Net increase in capital equipment during year—								
Tram, Trolley-bus and Omnibus £'000	-21	639	349	22	(b)	255	62 (c)	1,306
Gross revenue (d)—								
Tram, Trolley-bus and Omnibus £'000	14,079	8,845	3,638	2,820	2,239	1,156	159	32,936
Working expenses (e)—								
Tram, Trolley-bus and Omnibus £'000	14,456	8,629	3,707	2,785	2,473	1,357	222	33,629
Net revenue—								
Tram, Trolley-bus and Omnibus £'000	-376	216	-70	36	-235	-201	-63	-693
Ratio of working expenses to gross revenue—								
Tram, Trolley-bus and Omnibus percent.	102.67	97.56	101.91	98.74	110.49	117.38	139.47	102.10
Employees—								
Tram, Trolley-bus and Omnibus No.	8,871	5,533	2,905 (f)	1,788	1,592	756	110	21,555
Accidents—								
Tram and Trolley-bus (g)—								
Persons killed No.	4	17	5	1	..	2	..	29
Persons injured "	234	1,136	327	469	95	70	..	2,331

(a) Trolley buses ceased to operate in New South Wales on 30th August, 1959. (b) Not available.
(c) Excludes Western Australia. (d) Excludes government grants. (e) Includes provision of reserves for depreciation, etc., where possible. (f) Average. (g) Includes accidents relating to omnibuses operated by the Adelaide Municipal Tramways Trust and the Hobart and Launceston Metropolitan Transport Trust, and excludes accidents to employees in New South Wales.

NOTE.—Minus sign (—) denotes deficit.

RAILWAY SYSTEMS AUSTRALIA

SCALE OF MILES

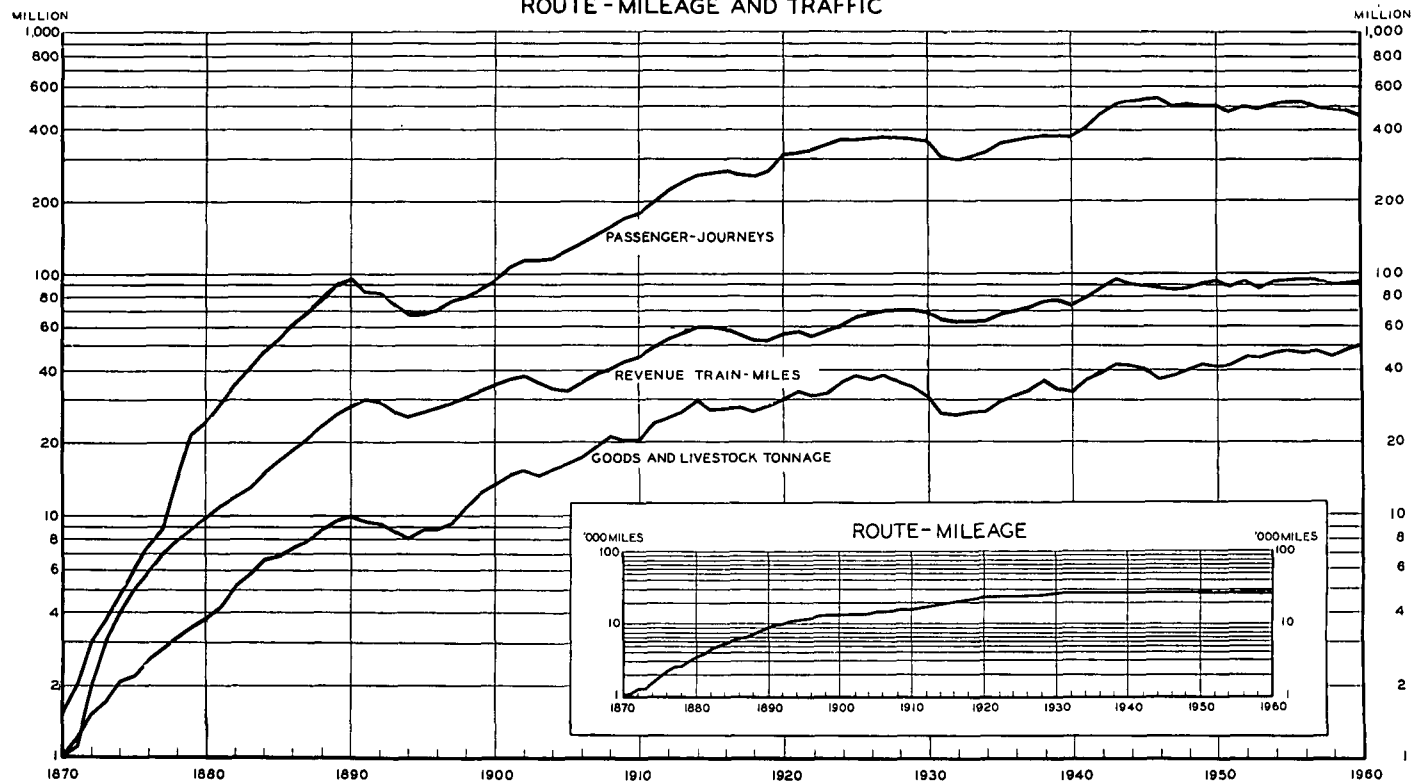
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GOVERNMENT RAILWAYS: AUSTRALIA, 1870 TO 1960

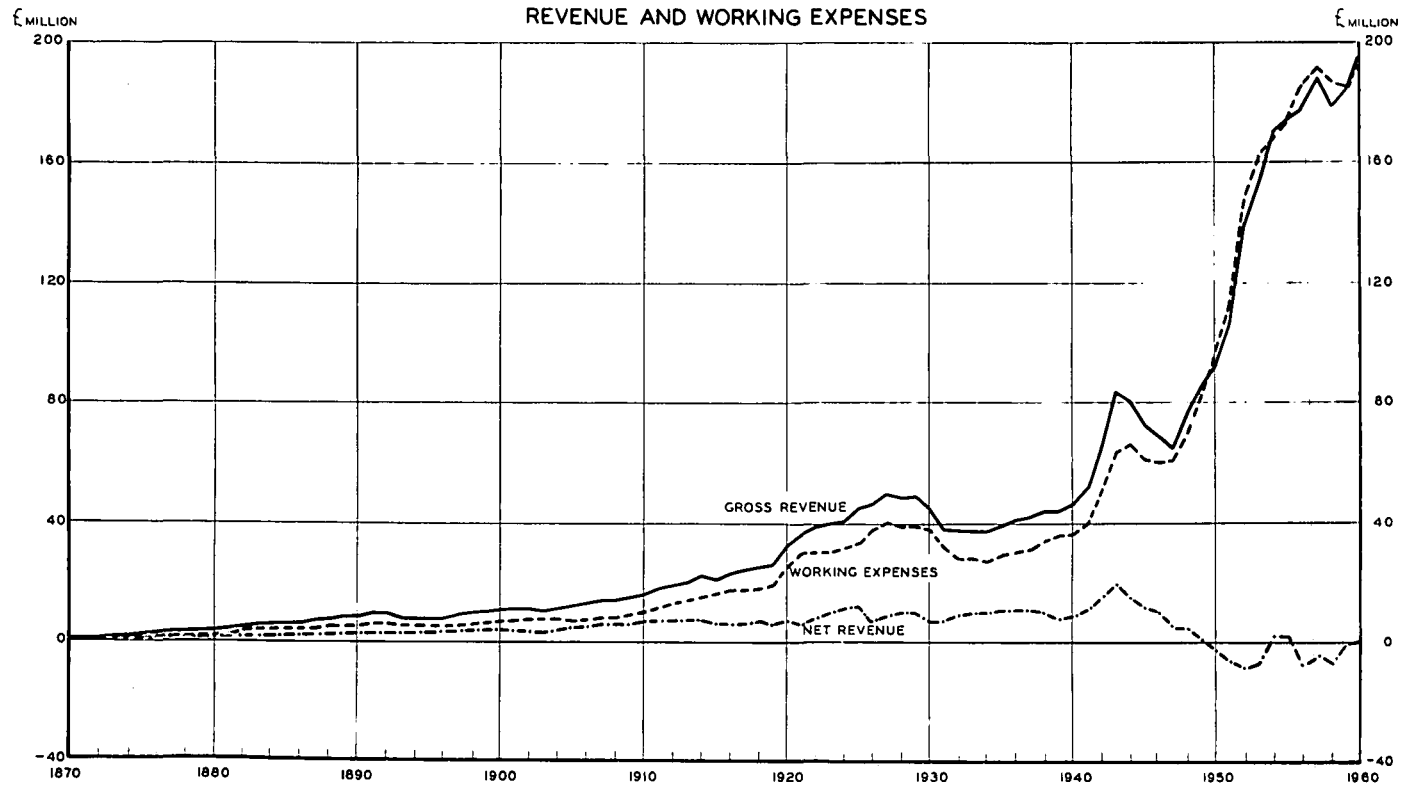
RATIO GRAPH

ROUTE - MILEAGE AND TRAFFIC



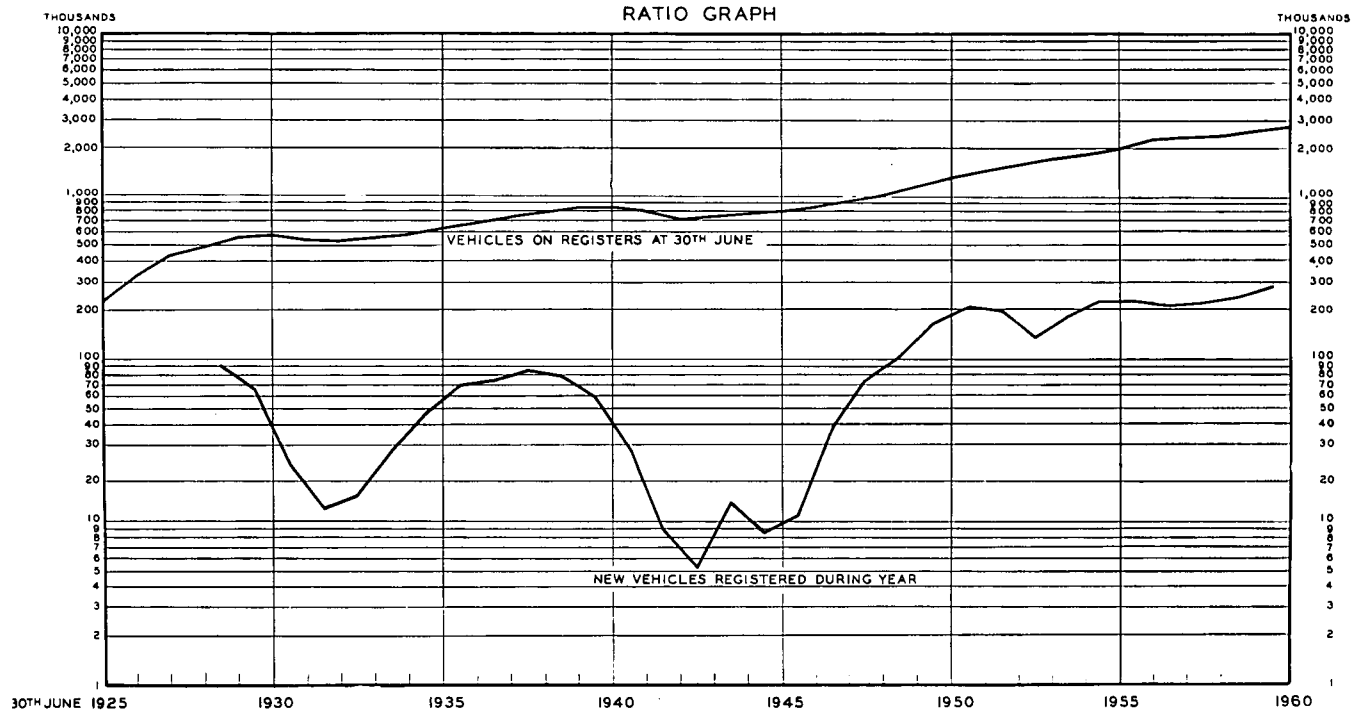
NOTE:— VERTICAL SCALE IS LOGARITHMIC, AND THE CURVES RISE AND FALL ACCORDING TO RATE OF INCREASE OR DECREASE, ACTUAL NUMBERS ARE INDICATED BY SCALE.

GOVERNMENT RAILWAYS: AUSTRALIA, 1870 TO 1960



MOTOR VEHICLE REGISTRATIONS: AUSTRALIA, 1925 TO 1960

(EXCLUDING MOTOR CYCLES)



NOTE:-VERTICAL SCALE IS LOGARITHMIC, AND THE CURVES RISE AND FALL ACCORDING TO RATE OF INCREASE OR DECREASE. ACTUAL NUMBERS ARE INDICATED BY SCALE.

(ii) *Summary of Operations, Australia.* The following table gives a summary of the operations of tramway, trolley-bus and omnibus systems controlled by government and municipal authorities, for the years 1955-56 to 1959-60.

TRAMWAY, TROLLEY-BUS AND OMNIBUS SERVICES: GOVERNMENT AND MUNICIPAL, AUSTRALIA.

Particulars.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
Route-miles at 30th June—					
Tram miles	427	398	344	286	275
Trolley-bus "	91	96	98	105	92
Omnibus "	4,571	4,869	4,803	5,664	5,773
Vehicle miles—					
Tram(a) '000	51,630	(b) 50,601	43,813	37,659	34,379
Trolley-bus "	6,273	6,053	5,803	5,277	5,444
Omnibus "	58,789	60,007	64,878	78,881	81,755
Rolling stock at 30th June—					
Tram No.	2,303	2,106	1,796	1,584	1,514
Trolley-bus "	316	310	305	279	246
Omnibus "	2,392	2,474	2,730	3,027	3,165
Passenger-journeys—					
Tram(a) '000	534,266	479,399	423,471	346,957	312,913
Trolley-bus "	34,185	32,263	28,607	25,720	25,403
Omnibus(c) "	358,593	320,605	350,652	404,676	420,360
Net increase in capital equipment during year—					
Tram, Trolley-bus and Omnibus .. £'000	1,799	2,770	2,932	1,880	(d) 1,306
Gross revenue(e)—					
Tram, Trolley-bus and Omnibus "	25,471	29,473	28,762	30,162	32,936
Working expenses(f)—					
Tram, Trolley-bus and Omnibus "	31,528	31,986	31,701	32,338	33,629
Net revenue—					
Tram, Trolley-bus and Omnibus "	-6,057	-2,513	-2,939	-2,176	-693
Ratio of working expenses to gross revenue—					
Tram, Trolley-bus and Omnibus per cent.	123.78	108.53	110.22	107.21	102.10
Employees—					
Tram, Trolley-bus and Omnibus No.	24,336	23,887	22,679	22,569	21,555
Accidents—					
Tram and Trolley-bus(g)—					
Persons killed .. No.	42	45	36	31	29
Persons injured .. "	3,077	3,158	2,969	2,399	2,331

(a) Includes particulars for New South Wales trolley-buses up to cessation of operation in August, 1959.

(b) Tramway vehicle miles compiled on a revised basis for New South Wales; therefore figures from 1956-57 are not comparable with those for previous years.

(c) Includes particulars for Tasmanian trams and trolley-buses.

(d) Excludes Western Australia.

(e) Excludes government grants.

(f) Includes provision of reserves for depreciation, etc., where possible.

(g) Includes accidents relating to omnibuses operated by the Adelaide Municipal Tramways Trust and the Hobart and Launceston Metropolitan Transport Trust, and excludes accidents to employees in New South Wales.

NOTE.—Minus sign (—) denotes deficit.

3. *Private Services.—Summary of Operations.* The following table shows the operations of motor omnibus services under the control of private operators in New South Wales, Victoria, South Australia and Western Australia during each of the years 1955–56 to 1959–60:—

MOTOR OMNIBUS SERVICES: PRIVATE.

Year. —	Number of Omnibuses.	Omnibus-miles. (‘000.)	Passenger-journeys. (‘000.)	Value of Plant and Equipment. (£’000.)	Gross Revenue. (£’000.)	Persons Employed.
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NEW SOUTH WALES.(a)

1955–56..	808	24,335	96,759	1,384	3,216	1,583
1956–57..	848	24,449	93,761	1,424	3,676	1,635
1957–58..	901	25,385	96,803	1,584	3,722	1,704
1958–59..	916	25,496	95,457	1,586	3,721	1,545
1959–60..	936	26,676	98,303	1,661	4,025	1,679

VICTORIA.(b)

1955–56..	467	16,064	78,698	(c) 519	1,994	(d) 735
1956–57..	459	16,094	74,026	655	2,196	732
1957–58(e)	472	15,701	73,020	670	2,219	714
1958–59(e)	469	15,592	72,005	670	2,206	750
1959–60(e)	477	15,448	70,719	759	2,319	705

SOUTH AUSTRALIA.(f)

1955–56..	113	6,082	13,508	(g) {	707	(g) }
1956–57..	117	6,045	13,254		712	
1957–58..	113	6,096	12,713		726	
1958–59..	116	6,042	12,107		732	
1959–60..	117	6,208	11,457		833	

WESTERN AUSTRALIA.(h)

1955–56..	372	12,172	32,607	1,125	1,581	827
1956–57..	378	11,801	30,802	1,142	1,594	837
1957–58..	383	11,644	29,881	1,030	1,577	800
1958–59(i)	146	6,028	15,846	260	804	287
1959–60..	137	4,142	11,183	243	585	272

(a) Metropolitan, Newcastle and Wollongong transport districts only. (b) Metropolitan area only. (c) Vehicles only. (d) Drivers only. (e) Partly estimated. (f) Services licensed by the Metropolitan Transport Trust and the Transport Control Board. (g) Not available. (h) Includes services operated in metropolitan and rural areas. (i) During 1958–59, five private services were taken over by the Metropolitan Transport Trust.

D. FERRY (PASSENGER) SERVICES.

1. *General.*—Ferry passenger services are operated in the following States—New South Wales, at Sydney and Newcastle; Western Australia, on the Swan River at Perth; Tasmania, on the Derwent River at Hobart, on the Mersey River at Devonport and across D’Entrecasteaux Channel to Bruny Island. Control is exercised both by governmental authorities and by private operators. In Victoria and Queensland the services operated are not extensive. There are no ferry passenger services in South Australia.

2. **Summary of Operations.**—The operations of ferry passenger services in New South Wales, Western Australia and Tasmania during the years 1955–56 to 1959–60 are summarized in the following table. Particulars of passengers carried on vehicular ferries are not included.

FERRY (PASSENGER) SERVICES.

Year.	Number of Vessels.	Passenger Accommodation.	Passenger-journeys. (‘000.)	Gross Revenue. (£.)	Persons Employed.
NEW SOUTH WALES—SYDNEY AND NEWCASTLE.					
1955–56	39	22,696	18,056	741,695	346
1956–57	40	22,950	16,810	875,000	341
1957–58	39	22,179	16,375	846,000	318
1958–59	37	19,300	15,906	800,196	308
1959–60	37	19,191	15,365	835,700	298
WESTERN AUSTRALIA—PERTH.					
1955–56	4	785	437	9,944	10
1956–57	4	785	445	12,836	11
1957–58	4	785	442	13,520	11
1958–59	4	785	407	13,504	11
1959–60	4	785	362	12,219	7
TASMANIA—HOBART AND DEVONPORT.					
1955–56	5	1,582	1,034	29,531	33
1956–57	5	1,602	707	29,632	24
1957–58	5	1,602	493	22,399	23
1958–59	5	1,602	445	22,202	23
1959–60	5	1,562	465	22,427	22

E. MOTOR VEHICLES.

1. **Motor Industry.**—Chapter VI.—Manufacturing Industry contains summarized information on the motor industry of Australia and includes some data on the imports of motor bodies and chassis. Chapter XIII.—Trade contains further data on imports, including those of petroleum products.

2. **Registration.**—(i) *General.* The arrangements for the registration of motor vehicles and the licensing of drivers and riders are not uniform throughout Australia, since they are the function of a separate authority, or authorities, in each State and Territory. The following statement indicates the procedure followed at 30th June, 1960, in each of the States and Territories, and the fees for registration and licensing and the amount of motor tax payable where this tax is not incorporated in the registration fees. Complete or partial exemption from the payment of registration fees or motor tax is usually granted for certain vehicles, such as ambulances, fire-brigade vehicles, those owned by farmers and used solely for carting the produce of, or requisites for, their farms, Government-owned vehicles, etc.

In all States except South Australia, before a licence to drive a motor vehicle or ride a motor cycle is issued, the applicant must, by passing the prescribed test, satisfy the competent authority that he or she is capable of driving or riding the vehicle concerned. All vehicles before being registered must be tested for road-worthiness.

(ii) *New South Wales.* The registration of vehicles, licensing of drivers, and collection of various taxes, fees and charges are functions of the Commissioner for Motor Transport. By arrangement with the Commissioner for Motor Transport, the police effect the registrations and collect the taxes and fees in certain areas. The normal term of registrations and licences and renewals thereof is a year, but quarterly registrations of motor vehicles are permitted under certain conditions. A driver's licence costs £1 a year for a motor vehicle and a rider's licence 15s. a year for a motor cycle. A learner's permit, which has a currency of two months, costs 5s. Annual registration fees are as follows:—Motor cycles, 15s.; motor cars, lorries, trailers, tractors and plant, £1 10s.; taxi cabs, hire cars and motor omnibuses—metropolitan

area and cities of Greater Wollongong and Newcastle, £5; country, £3; traders' plates—motor cycles, £3 3s. 6d., other vehicles, £13 15s. An additional fee of 10s. a year is payable in respect of any vehicle used in trade or business. A motor tax is payable in addition to the registration fee. For motor cycles the tax is:—without side-car, £1 7s.; with side-car or box, £2 7s. 6d. For vehicles other than motor cycles, the tax is payable on the unladen weight of the vehicle. The taxes payable for different classes of vehicles are as follows:—

Motor cars (including taxi-cabs, etc.). The rate commences at 3s. 6d. a $\frac{1}{2}$ cwt. but decreases slightly as the weight of the vehicles increases.

Motor Lorries, Trailers and Plant. The tax payable commences at £1 15s. for a vehicle of 5 cwt. or less, and rises by a proportionately greater amount for each increase of 5 cwt., so that the average amount payable per cwt. increases with the weight of the vehicle.

Tractors. The rates of tax are the same as for motor lorries, subject to a maximum of £31 14s. 6d.

Motor Omnibuses and Tourist Vehicles. The rate commences at 5s. a $\frac{1}{2}$ cwt., but decreases slightly as the weight of the vehicle increases.

In the case of vehicles with solid rubber tyres, the rates shown above are increased by 25 per cent.

(iii) *Victoria*. The registration of motor vehicles and the licensing of drivers and riders are controlled by the Chief Commissioner of Police under the provisions of the Motor Car Act. The annual fees payable for the registration of motor vehicles and licensing of drivers and riders are as follows:—

Motor cycles (without trailer, fore-car or side-car attached)	£1 10s.
Motor cycles (with trailer, etc.) ..	£2 5s.
Motor cars (private use) ..	4s. 6d. for each power-weight unit. (The number of power-weight units equals the sum of the horsepower and the weight in cwt. of a motor car unladen and ready for use.)
Trailers attached to motor cars ..	£1 10s. to £6, according to the unladen weight and type of tyres.
Commercial Passenger Vehicles (omnibus type)—operating under specified licences	£7 10s.
Motor cars used for carrying passengers or goods for hire or in the course of trade	From 5s. 6d. to 13s. 3d. for each power-weight unit, according to the unladen weight and type of tyres.
Motor cars (constructed for the carriage of goods) owned by primary producers and used solely in connexion with their business	From 3s. 9d. to 8s. for each power-weight unit, according to the number of wheels and type of tyres. (When more than one motor car is owned, the rate shall apply to one motor car only.)
Self-propelled mobile cranes used otherwise than for lifting and towing vehicles	£10 (unless a lower fee would otherwise have been payable).
Drivers' and riders' licences (3 years)	£1 10s.

Notwithstanding anything in the foregoing paragraphs, the minimum fee payable for the registration of a motor vehicle (other than a motor cycle) shall be £4 10s.

On 16th November, 1959, the Victorian Government placed a surcharge of £1 on every Third Party Insurance Premium. As from 16th May, 1960, no registration fee shall be payable on certain vehicles incorporating agricultural implements, used within certain limits.

(iv) *Queensland*. The Main Roads Department controls the registration of motor vehicles within the State. The rates are as follows:—Annual registration fees for pneumatic-tired vehicles propelled by petrol engines are determined by adding the horsepower to the weight in cwt. of the vehicle ready for use, and charging 6s. a unit. For solid-tired vehicles propelled by petrol engines the sum of the horsepower, weight of the vehicle, and maximum permissible load (in cwt.) is charged at 5s. a unit if the maximum permissible load is not over 2 tons, and 9s. a unit if over 2 tons. Registration fees for trailers are determined at the rate

of 6s. a cwt., and for caravan trailers at the rate of 9s. a cwt. Traction engines are registered at the fixed rate of £3 3s. a year. The fees payable according to these rates on motor cars range from £3 12s. to approximately £27. On pneumatic-tyred trucks and utilities, the fees are from about £12 12s. to over £15 for a truck with a capacity of 1 ton, and up to £30 for 5-ton trucks. Fees for motor cycles are £2 5s., or £3 8s. with a side-car. With the above-mentioned fees, an annual driving fee of 15s. for a motor vehicle or motor cycle must be paid to the Main Roads Department.

The driver of any motor vehicle or the rider of any motor cycle must hold a licence from the Commissioner of Police. Licences are endorsed according to the types of vehicles in the operation of which the holder has shown proficiency and which he or she is permitted to operate. The period of currency of a licence varies according to the age of the applicant, namely:—Aged under 41 years, 10 years; 41 years and under 46 years, until 51st birthday; 46 years and under 62 years, 5 years; 62 years and under 66 years, until 67th birthday; 66 years and over, 1 year.

(v) *South Australia.* Under the provisions of the Motor Vehicles Act 1959, the Registrar of Motor Vehicles controls the registration of all motor vehicles, and the granting of licences. The same fee is prescribed for both a motor vehicle propelled by a compression ignition (diesel) engine and a vehicle of the same horsepower and weight propelled by a petrol engine. The power-weight unit is the basis for the calculation of registration fees. The period of registration is for six or twelve months commencing with the date of registration. Commercial vehicles owned by primary producers, prospectors or fishermen are registered at 50 per cent. of the ordinary fee. The ordinary fees payable for yearly registration of motor vehicles, other than motor cycles and trailers, extend from a minimum of £3 (commercial vehicles £3) for 10 power-weight units or less to £40 10s. (commercial vehicles £56) for 125 power weight units. For each additional 5 power weight units or part thereof in excess of 125, £2 (commercial vehicles £3) is charged. The ordinary fees for motor cycles are:—solo up to 1cwt., £1 10s.; over 1 cwt., £2 5s.; with sidecar attached, £3. Fees for trailers vary according to the weight of the vehicle and range from £2 5s. for 1 ton or less, to £4 10s. for 2 tons or more. An extra 50 per cent. is charged for trailers with solid rubber tyres and 100 per cent. for those with metal tyres. Fees for drivers' and riders' licences are:—for any motor vehicle, £1; for a motor cycle, 10s.

(vi) *Western Australia.* The Traffic Act 1919–1960 provides for the registration of motor vehicles by (i) the Commissioner of Police for the Metropolitan Traffic District and (ii) individual Local Government Authorities (10 Municipalities and 114 District Road Boards) throughout the remainder of the State. Ministerial supervision is exercised by the Minister for Transport. Registration fees for motor vehicles other than motor cycles are assessed on a power-weight unit basis. The power-weight of a vehicle is the weight in cwt. of the vehicle ready for use plus the rated (R.A.C. formula) horsepower. As at 30th June, 1960, annual fees for all types of vehicles were as follows:—cars, 5s. for each power-weight unit; commercial vehicles, from 6s. a unit to 9s. a unit where the number of units exceeds 100; tractors (other than prime movers), 4s. each unit; tractors (prime movers), from 5s. 3d. a unit (maximum 50 units) to 9s. a unit where the number of units exceeds 100. Trailers and caravans are assessed on the unladen weight and semi-trailers (the trailer portion of an articulated vehicle) on a load plus weight basis. Annual fees are:—trailers, from £1 10s. (10 cwt.) to £20 (30 cwt.) and £1 for each cwt. in excess of 30 cwt.; caravans, from 3s. to 5s. a cwt.; semi-trailers, from £1 10s. where the weight of the semi-trailer plus the declared maximum load does not exceed 10cwt., to £72 for the first 10 tons and £6 for each additional ton of load-weight thereafter.

Additional fees are chargeable as follows:—80 per cent. extra if fitted with metal tyres, 40 per cent. if fitted with solid rubber tyres and 10 per cent. if fitted with cushion tyres (i.e., neither solid nor pneumatic), whilst vehicles such as excavators, graders, tractors, etc., using fuel other than petrol are charged at double the assessed fee. Annual fees for motor cycles vary from 15s. (maximum 75 c.c.) to £2 10s. for over 350 c.c. capacity and, with side-car attached, £3 irrespective of the size of the motor cycle. Vehicles used in the carriage of either passengers or goods for hire or reward (other than an omnibus licenced under the State Transport Co-ordination Act 1933–1948) are subject to the additional registration fee of 15s. a wheel or pair of dual wheels (i.e. £1 10s. per axle). The issue of drivers', riders' and conductors' licences, on an annual basis, is the sole prerogative of the Commissioner of Police. The annual driver/rider licence fee is £1 whilst the additional fee to drive an omnibus or taxi (conductor's licence) is 10s. The maximum period for vehicle registration is twelve months, but half-yearly renewals may be effected. Date to date registration periods operate in the Metropolitan traffic area; elsewhere, a quarterly system of "staggering", whereby the last day of each quarter is an expiry date, is in operation.

(vii) *Tasmania*. By the Transport Act 1938 the Transport Commission assumed control of the registration and taxation of motor vehicles, the licensing of drivers and the regulation of commercial transport. Annual registration fees are as follows:—Motor vehicles other than motor cycles and trailers, £1 10s. trailers, £1; motor cycles, £1. Charges for transfer of registration of vehicles and duplicate certificates are 10s. and 2s. 6d. respectively. Charge for the transfer of trailers is 5s. A licence to drive or ride any motor vehicle costs £1 per year. Motor tax is calculated on a power-weight basis—i.e., unladen weight units and horse-power. Separate rates are provided for lorries, trailers, and other motor vehicles. For lorries and trailers, every $\frac{1}{2}$ cwt., and for other motor vehicles, every cwt., constitutes a weight unit. The rate of tax for lorries is 3s. 6d. a unit and for motor vehicles other than lorries and trailers 4s. 6d. a unit. In the case of a trailer, if the number of weight units does not exceed ten, no tax is payable, but for every unit exceeding ten the rate is 3s. 6d. For motor cycles the tax is £2 for less than 1 horse-power, and £2 15s. for 1 horse-power and over.

(viii) *Northern Territory*. The registration of motor vehicles and the licensing of drivers and riders is controlled by the Registrar of Motor Vehicles, under the provisions of the Motor Vehicles Ordinance 1949–1959. Annual registration fees for motor cars, motor lorries and tractors and motor omnibuses vary according to whether the vehicle is fitted with (a) pneumatic, semi-pneumatic rubber or super-resilient tyres or (b) non-pneumatic or solid tyres. The fees payable (for each $\frac{1}{2}$ cwt.) are as follows:—motor cars, (a) 2s. 9d., (b) 3s. 9d.; motor lorries and tractors, (a) 2s. 9d., (b) 3s. 6d.; motor omnibuses, (a) 4s. 3d., (b) 5s. 6d. For British manufactured vehicles these rates are reduced by 6d. a $\frac{1}{2}$ cwt. A concession of 50 per cent. is allowed for (a) a motor lorry or tractor owned and used by a farmer or grazier solely for transporting his own produce or requisites for his business and (b) a motor lorry owned and used by a person engaged, on his own account and not in association with more than two other persons, in mining, hunting or trapping. The maximum fee for a motor tractor is £15. Registration fees for motor cycles are as follows:—without side-car—British manufactured, £1 1s., other, £1 2s. 6d.; with side-car—British manufactured, £1 18s., other, £2. For other motor vehicles the fees are—British manufactured, 3s. a $\frac{1}{2}$ cwt., other, 3s. 6d. a $\frac{1}{2}$ cwt.

The annual fee for a licence to ride a motor cycle is 5s. and to drive any other motor vehicle 10s. Where the licence is in respect of a motor lorry with a carrying capacity of more than one ton, a motor omnibus, a hire car, or a motor vehicle licensed to carry goods or to carry workmen to and from their work, an additional 10s. is payable. The fee for the use of one trader's plate is £1.

(ix) *Australian Capital Territory*. The registration of motor vehicles and the licensing of drivers and riders in the Australian Capital Territory is controlled by the Australian Capital Territory Services Branch of the Department of the Interior under the provisions of the Motor Traffic Ordinance 1936–1960. Annual registration fees for motor cars, lorries and omnibuses are as follows (rates are for each $\frac{1}{2}$ cwt. of unladen weight):—motor cars, 3s. 6d. a $\frac{1}{2}$ cwt.; motor lorries—not over 40 cwt. unladen weight, 3s. 6d.; over 40 to 80 cwt., 4s. 3d.; over 80 to 120 cwt., 5s.; over 120 cwt., 5s. 9d.; motor omnibuses, 5s. Fees for other motor vehicles are:—motor cycles—without side-car, £1 10s., with side-car, £2 10s.; motor tractors—primary producers', £1, other, £5; other motor vehicles, £5. The rates charged for the registration of trailers are:—domestic, social or farmers' purposes only—unladen weight not over 5 cwt., 10s.; over 5 to 10 cwt., £1; over 10 cwt., £1 for every 10 cwt. or part thereof; other trailers—2s. 9d. a $\frac{1}{2}$ cwt. of the unladen weight. Concessions are available in the case of vehicles owned by primary producers, totally and permanently incapacitated ex-servicemen, clergymen and certain members of the staffs of diplomatic missions.

The annual fees for drivers' and riders' licences are:—car, lorry or motor cycle, 10s., other vehicles, 12s. 6d.

3. *Taxi-cabs and Other Hire Vehicles*.—In all the capital cities and in most of the provincial centres, taxi-cabs and other vehicles ply for hire under licence granted by either the Commissioner of Police or the local government authority concerned. As most of these vehicles are independently controlled by individuals or small companies, it has not been possible to obtain complete data in respect of their operations.

4. *Motor Omnibuses*.—In both urban and provincial centres, motor omnibus traffic has assumed considerable proportions during recent years, and in some States the railway and tramway systems run motor services complementary to their main services. There has been a considerable replacement also, during the last few years, of existing tramway services by trolley-bus and motor omnibus services. (See pp. 545–6.)

5. *Motor Vehicles on the Register, etc.—(i) Registrations and Revenue.* The following table shows particulars of the registration of motor vehicles, licences issued and revenue received for 1959–60 and a summary for Australia for each of the years 1955–56 to 1959–60. It should be noted that in Victoria registration is made on the basis of the purpose for which the vehicle is to be used; consequently, motor car registrations are overstated by the inclusion of commercial vehicles registered for private use.

A graph showing, for all motor vehicles other than motor cycles, the registrations in force at 30th June of each year from 1925 to 1960 will be found on page 550.

MOTOR VEHICLES: REGISTRATIONS AND REVENUE.

State or Territory, and Year.	Number of Motor Vehicles Registered at 30th June.(a)					Number of Drivers' and Riders' Licences in force at 30th June.	Gross Revenue derived from—			
	Motor Cars.(b)	Commercial Vehicles.(c)	Motor Cycles.	Total.	Per 1,000 of Population at 30th June.		Vehicle Registrations and Motor Tax.	Drivers' and Riders' Licences.	Other Sources.	Total.
							(£'000.)	(£'000.)	(£'000.)	(£'000.)
STATES AND TERRITORIES, 1959–60.										
N.S.W. . .	628,072	314,832	28,773	971,677	254	1,275,245	11,309	1,324	4,791	17,424
Victoria (d)	652,289	172,535	22,006	846,830	293	967,952	9,759	904	3,543	14,206
Queensland	241,613	147,184	17,946	406,743	278	(e)	5,469	300	1,518	7,287
S. Aust. . .	192,872	67,887	15,934	276,693	293	351,596	3,812	417	101	4,330
W. Aust. . .	127,863	70,325	13,609	211,797	290	246,586	2,437	215	110	2,762
Tasmania	64,751	26,083	3,123	93,957	270	108,205	1,136	108	137	1,381
Nor. Terr.	4,324	4,651	717	9,692	445	10,609	50	8	1	59
A.C.T. . .	12,413	3,757	382	16,552	316	24,659	143	12	2	157
Australia . .	4,192,419	1,807,254	102,490	6,102,163	276	6,298,485	34,115	3,288	10,203	47,606

SUMMARY, AUSTRALIA.

	(d)	(d)		(f)						
1955-56 ..	1,467,252	683,396	125,600	2,276,248	241	2,457,246	24,431	1,874	3,386	29,698
1956-57 ..	1,564,335	707,107	119,963	2,391,405	248	2,575,896	27,37	2,205	4,803	34,387
1957-58 ..	1,675,638	735,171	115,883	2,526,692	257	2,703,328	30,69	2,368	5,467	38,534
1958-59 ..	1,782,852	766,281	110,552	2,659,685	264	2,833,040	31,64	2,721	8,373	42,736
1959-60 ..	1,924,197	807,254	102,490	2,833,941	276	2,984,852	34,115	3,288	10,203	47,606

(a) Excludes, at 30th June, 1960, trailers (215,472), road tractors, etc. (70,451), and dealers' plates (9,715). (b) Includes taxis, hire cars and station wagons. (c) Includes utilities, panel vans, trucks and omnibuses. (d) See reference to Victoria above. (e) Not available. (f) Excludes Queensland.

NOTE.—All Commonwealth-owned vehicles are included except those belonging to the Defence Services. Prior to 1st January, 1956, Department of the Navy vehicles were also included.

(ii) *Relation to Population.* The table following shows the number of vehicles (excluding motor cycles) registered per 1,000 of population in each State and Territory at 30th June for each of the years 1956 to 1960.

MOTOR VEHICLES (EXCLUDING MOTOR CYCLES) REGISTERED PER 1,000 OF POPULATION.

Date.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
30th June, 1956 ..	204	250	223	257	243	223	272	277	228
" 1957 ..	213	255	233	264	245	231	313	274	236
" 1958 ..	224	264	243	269	251	241	360	286	245
" 1959 ..	234	272	253	267	259	248	370	296	253
" 1960 ..	246	285	266	276	271	261	417	309	266

6. **New Vehicles Registered.**—(i) *States and Territories, 1959–60.* The following table shows the number of new vehicles registered in each State and Territory during 1959–60. A graph showing the number of new motor vehicles (excluding motor cycles) registered during each of the years 1928–29 to 1959–60 will be found on page 550.

NEW MOTOR VEHICLES REGISTERED, 1959–60.

Vehicles.	N.S.W.	Vic.(a)	Q'land.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Motor cars (b) ..	69,353	74,036	25,664	20,847	13,692	6,527	482	1,820	212,421
Commercial vehicles, etc.(c) ..	42,077	16,334	11,859	5,588	5,695	2,114	390	497	84,554
Motor cycles ..	2,211	2,220	1,548	1,561	1,949	97	25	81	9,692
Total ..	113,641	92,590	39,071	27,996	21,336	8,738	897	2,398	306,667

(a) See para. 5(i) on p. 557. (b) Includes taxis, hire cars and station wagons. (c) Includes utilities, panel vans, trucks and omnibuses.

(ii) *Australia.* Particulars of the number of new vehicles registered in Australia during each of the years 1955–56 to 1959–60 are shown in the following table:—

NEW MOTOR VEHICLES REGISTERED: AUSTRALIA.

Vehicles.	1955–56.	1956–57.	1957–58.	1958–59.	1959–60.
Motor cars (a)(b)	163,598	149,695	165,236	170,181	212,421
Commercial vehicles, etc.(b)(c)	69,312	58,967	67,139	74,390	84,554
Motor cycles	10,530	9,655	10,604	9,992	9,692
Total	243,440	218,317	242,979	254,563	306,667

(a) Includes taxis, hire cars and station wagons. (b) See para. 5(i) on p. 557. (c) Includes utilities, panel vans, trucks and omnibuses.

7. **World Motor Vehicle Statistics, 1960.**—At 1st January, 1960 there were 117,788,400 motor cars, trucks and omnibuses registered in various countries of the world. This is an increase of 5.0 per cent. on the figure for the previous year, 112,147,200. Of the 1960 registrations, 70,234,300 or 67.7 per cent. of the world total were in the United States of America, whilst Australian registrations amounted to 2.3 per cent. This information is largely derived from the *American Automobile*, May, 1960.

F. ROADS AND BRIDGES.

Information on the length of roads in Australia, the class of roads and the composition, together with particulars of the financial operations of the roads authorities in the several States is included in Chapter XIX.—Local Government, of this Year Book.

G. ROAD TRAFFIC ACCIDENTS.

1. **General.**—Statistics of "Total Accidents Recorded" were collected to 31st December, 1957, on a comparable basis for all States except Tasmania, where, under legislation passed on 10th August, 1954, it became no longer obligatory to report accidents involving only damage to property. However, this series was suspended from 1st January, 1958, owing to the inconsistency between States in recording "damage only" accidents.

Details are not available in respect of road traffic accidents which occur in the Northern Territory.

2. **Accidents Involving Casualties.**—(i) *States, 1959–60.* The following table gives a summary of accidents involving casualties in each State and the Australian Capital Territory for the year 1959–60.

**ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(a): ACCIDENTS
RECORDED AND CASUALTIES, 1959-60.**

State or Territory.	Accidents Involving Casualties.	Persons Killed.			Persons Injured.		
		Number.	Per 100,000 of Mean Population.	Per 10,000 Motor Vehicles Registered.	Number.	Per 100,000 of Mean Population.	Per 10,000 Motor Vehicles Registered.
New South Wales ..	16,871	939	25	10	22,330	589	230
Victoria ..	12,267	698	24	8	16,595	582	202
Queensland ..	5,720	359	25	9	8,054	556	198
South Australia ..	5,340	203	22	7	6,856	734	248
W. Australia ..	3,656	180	25	8	4,788	660	226
Tasmania ..	743	79	23	8	1,004	289	107
Aust. Cap. Terr. ..	322	10	20	6	477	954	288
Total ..	44,919	2,468	24	9	60,104	591	219

(a) Accidents (reported to the police) which occurred in public thoroughfares and which caused death or injury to persons to an extent requiring surgical or medical treatment.

(ii) *Riders, Drivers, Pedestrians, etc., Killed or Injured.* The following table shows the number of persons killed and the number injured during 1959–60 in each State and the Australian Capital Territory, classified into drivers, riders, pedestrians, etc. Responsibility for cause of accident is not indicated by this classification.

**ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(a): DRIVERS, RIDERS,
PEDESTRIANS, ETC., KILLED OR INJURED, 1959-60.**

Drivers, Riders, Pedestrians, etc.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Total.
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PERSONS KILLED.

Drivers of Motor Vehicles	244	221	102	55	48	20	4	694
Motor Cyclists ..	49	31	30	16	21	10	..	157
Pedal Cyclists ..	46	48	20	16	6	4	..	140
Passengers (all types)(b) ..	264	197	110	62	57	24	2	716
Pedestrians ..	336	198	96	53	47	21	4	755
Other Classes(c) ..	..	3	1	1	1	..	..	6
Total ..	939	698	359	203	180	79	10	2,468

PERSONS INJURED.

Drivers of Motor Vehicles	6,745	5,302	2,456	1,958	1,280	275	168	18,184
Motor Cyclists ..	1,673	881	887	1,095	807	72	29	5,444
Pedal Cyclists ..	1,130	1,332	556	785	412	57	51	4,323
Passengers (all types)(b) ..	8,828	6,373	3,286	2,345	1,666	449	192	23,139
Pedestrians ..	3,909	2,642	856	670	623	151	37	8,888
Other Classes(c) ..	45	65	13	3	..	..	..	126
Total ..	22,330	16,595	8,054	6,856	4,788	1,004	477	60,104

(a) Accidents (reported to the police) which occurred in public thoroughfares and which caused death or injury to persons to an extent requiring surgical or medical treatment. (b) Includes pillion riders. (c) Includes tram drivers, riders of horses and drivers of animal-drawn vehicles.

(iii) *Ages of Persons Killed or Injured.* The following table shows the age groups of persons killed or injured in traffic accidents in each State and the Australian Capital Territory during 1959-60:—

ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(a): AGES OF PERSONS KILLED OR INJURED, 1959-60.

Age Group (Years).	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Total.
PERSONS KILLED.								
Under 5 ..	20	34	14	7	6	4	..	85
5 and under 7 ..	17	10	11	9	2	..	..	49
7 " " 17 ..	77	57	34	15	15	5	..	203
17 " " 21 ..	115	77	50	26	29	13	..	310
21 " " 30 ..	142	111	53	31	26	14	3	380
30 " " 40 ..	131	90	49	26	20	8	4	328
40 " " 50 ..	112	76	43	22	27	12	2	294
50 " " 60 ..	103	74	34	10	12	10	..	243
60 and over ..	222	160	69	45	43	12	1	552
Not Stated ..	..	9	2	12	..	1	..	24
Total ..	939	698	359	203	180	79	10	2,468

PERSONS INJURED.

Under 5 ..	741	580	248	214	160	26	12	1,981
5 and under 7 ..	489	401	137	126	115	28	10	1,306
7 " " 17 ..	2,758	2,260	1,073	935	645	146	53	7,870
17 " " 21 ..	3,723	2,652	1,600	1,181	1,039	200	83	10,478
21 " " 30 ..	4,732	3,579	1,621	1,210	895	147	128	12,312
30 " " 40 ..	3,347	2,481	1,107	900	522	130	82	8,569
40 " " 50 ..	2,518	1,822	860	642	421	88	78	6,429
50 " " 60 ..	1,826	1,257	646	467	364	80	18	4,658
60 and over ..	1,850	1,247	623	459	302	62	12	4,555
Not Stated ..	346	316	139	722	325	97	1	1,946
Total ..	22,330	16,595	8,054	6,856	4,788	1,004	477	60,104

(a) Accidents (reported to the police) which occurred in public thoroughfares and which caused death or injury to persons to an extent requiring surgical or medical treatment.

(iv) *Accidents Recorded and Casualties, classified according to Type of Vehicle, Road User, etc., Involved.* The following table shows, for the year 1959-60, the number of accidents involving casualties in which each of several classes of vehicles, road users, etc., were involved. The persons killed and injured are similarly classified. As in the table in sub-paragraph (ii) above, responsibility for cause of accident is not indicated by this classification.

ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(a), CLASSIFIED ACCORDING TO TYPE OF VEHICLE, ROAD USER, ETC., INVOLVED: AUSTRALIA, 1959-60.

Particulars.	Motor Vehicle.	Motor Cycle.	Pedal Cycle.	Tram.	Animal and Animal-drawn Vehicle.	Pedestrian.	Fixed Object.	Other Vehicle.
Accidents Involving ..								
Casualties ..	41,932	6,300	4,492	351	452	9,033	2,693	226
Persons Killed ..	2,341	198	143	26	10	750	167	67
Persons Injured ..	56,729	7,193	4,582	440	550	8,913	3,784	349

(a) Accidents (reported to the police) which occurred in public thoroughfares and which caused death or injury to persons to an extent requiring surgical or medical treatment.

NOTE.—As accidents and casualties classified according to one type of road user, etc., may also be classified according to another, these totals cannot be added across to obtain grand totals.

The 41,932 accidents involving casualties in which motor vehicles were involved comprised 13,829 collisions with other motor vehicles, 4,214 with motor cycles, 3,758 with pedal cycles, 134 with trams, 267 with animals and animal-drawn vehicles, 8,367 with pedestrians, 2,384 with fixed objects, 189 with vehicles other than those mentioned, 8,316 instances of overturning or leaving the roadway, and 474 accidents to passengers only.

3. Road Traffic Accidents Involving Casualties, and Persons Killed or Injured.—The following table shows the number of road traffic accidents involving casualties and persons killed or injured in road traffic accidents in each State and the Australian Capital Territory during each of the years 1955–56 to 1959–60:—

**ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(a) AND PERSONS
KILLED OR INJURED.**

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Total.	
								Num-ber.	Per 10,000 Motor Vehicles Registered.

ACCIDENTS INVOLVING CASUALTIES.

1955–56	..	12,917	10,606	7,116	2,886	3,211	874	156	37,766	166
1956–57	..	13,473	10,804	7,527	3,142	3,082	852	186	39,066	167
1957–58	..	14,646	9,536	6,565	4,372	3,338	779	237	39,473	161
1958–59	..	15,216	12,462	5,603	3,984	3,450	791	260	41,766	162
1959–60	..	16,871	12,267	5,720	5,340	3,656	743	322	44,919	164

PERSONS KILLED.

1955–56	..	808	582	298	167	185	72	7	2,119	10
1956–57	..	774	589	325	185	168	65	7	2,113	9
1957–58	..	794	571	342	200	164	70	5	2,146	9
1958–59	..	833	661	333	185	178	68	6	2,264	9
1959–60	..	939	698	359	203	180	79	10	2,468	9

PERSONS INJURED.

1955–56	..	17,047	13,483	9,170	3,709	4,098	1,046	220	48,773	221
1956–57	..	17,321	14,120	9,800	3,944	3,921	1,107	237	50,450	216
1957–58	..	19,378	13,035	8,739	5,492	4,249	1,000	320	52,213	213
1958–59	..	19,854	16,784	7,700	5,183	4,506	990	342	55,359	214
1959–60	..	22,330	16,595	8,054	6,856	4,788	1,004	477	60,104	219

(a) Accidents (reported to the police) which occurred in public thoroughfares and which caused death or injury to persons to an extent requiring surgical or medical treatment.

4. Road Safety Organizations.—Chapter XXX.—Miscellaneous of this Year Book contains a description of the objects and work performed in the interests of road safety by the National Safety Council of Australia and the Australian Road Safety Council.

H. CIVIL AVIATION.

1. **Historical.**—A short review of the progress of civil aviation in Australia up to the date of foundation of a Civil Aviation Administration was published in Official Year Book No. 16, pages 334–5, and a brief account of the foundation and objects of this Administration was published in Official Year Book No. 19, page 299. Official Year Book No. 38 and earlier issues contain information on the control of civil aviation by the Board (1936) and later (1939) by the Department of that name. The Acts defining the broad principles of operation of the administration of civil aviation and the Regulations amplifying them, and the principal functions of the administration are also described.

The Department of Civil Aviation is divided in twelve Divisions as follows:—Air Transport; International Relations; Administration, Personnel and Establishments; Finance and Stores; Airport Engineering; Aviation Buildings and Property; Flying Operations; Airworthiness; Airways Operations; Airways Engineering; Aviation Medicine; Accident Investigation and Analysis.

2. **International Activity.**—(i) *International Organizations.* A full report of the formation of the International Civil Aviation Organization, the Commonwealth Air Transport Council and the South Pacific Air Transport Council appeared in Official Year Book No. 37 and particulars of subsequent activity in the international field were included in issue No. 38. The International Civil Aviation Organization had a membership of 80 nations at the end of June, 1960. Australia has continued her representation on the Council, a position which she has held since I.C.A.O. was established in 1947. The fourteenth meeting of the South Pacific Air Transport Council was held in Melbourne in November, 1960. Further details will be found in Official Year Book No. 40 and earlier issues.

(ii) *International Air Services.* Qantas Empire Airways have introduced into service seven Boeing 707 jet aircraft and four Lockheed Electra aircraft. The Boeing 707 operates to North America and on to the United Kingdom, and also to the United Kingdom via the Middle East. Lockheed Electra aircraft are in service to Japan via Manila and Hong Kong; Super Constellation aircraft provide services to South Africa across the Indian Ocean and a cargo service to United Kingdom via the Middle East; and DC4 aircraft fly to Norfolk Island. Qantas was operating aircraft over 73,463 route-miles on international services at 30th November, 1960. A summary of the operations of overseas services wholly or partly Australian-owned appears on page 565.

Three Lockheed Electra aircraft operated by Tasman Empire Airways Ltd., link Sydney with Auckland, Christchurch and Wellington; Melbourne with Auckland and Christchurch; and Brisbane with Auckland.

3. **Australian National Airlines Commission.**—The Commonwealth Australian National Airlines Act 1945 constituted the Australian National Airlines Commission for the purpose of establishing, maintaining and operating airline services for the transport of passengers and goods between Australian States and/or Territories and within Australian Territories. The Commission may, with the approval of the Minister, undertake services between Australia and places outside Australia, and, in certain circumstances, may engage in intra-state operations.

The operating organization set up to give effect to the Act is Trans-Australia Airlines.

4. **Regular Air Services within Australia.**—Details of the Government's rationalization scheme and the 1957 amendment to the Civil Aviation Agreement Act consequent upon Ansett Transport Industries Ltd. purchasing Australian National Airways Pty. Ltd. will be found in Official Year Book No. 44, pages 420 and 421.

The Airlines Equipment Act, assented to in October, 1958, gave effect to financial arrangements whereby re-equipment programmes would be assisted. An important example of this re-equipment programme was the introduction of Fokker Friendship and Lockheed Electra aircraft into regular air services within Australia.

A summary of the operations of regular air services within Australia appears on page 565 and a map showing air routes on pages 567–8.

5. **Air Ambulance Services.**—A brief statement on the foundation and objects of the Air Ambulance Services will be found in Official Year Book No. 32, pages 145 and 146.

During the year 1959-60, the Air Ambulance and Royal Flying Doctor Services continued to provide medical aid for the outback regions of Australia. The Royal Flying Doctor Service of Australia, operating from Broken Hill, New South Wales, Cloncurry, Queensland, Alice Springs, Northern Territory (operated in conjunction with the Department of Health), covers a wide area of inland Australia. The Bush Church Aid Society for Australia and Tasmania, supported by funds from the Church of England, operates from Ceduna in South Australia. The Federal Methodist Inland Mission operates services from Meekatharra, Western Australia, and the Queensland Ambulance Transport Brigade operates a service from Cairns in Queensland. Recently a Flying Surgeon Service came into operation in Queensland.

6. Training of Air Pilots.—A brief statement of the pre-war policy of the Commonwealth Government regarding assistance to Aero Clubs was given in Official Year Book No. 32, page 146, and details of further assistance granted are given in subsequent Year Books. Year Book No. 44, page 421, contains particulars of the existing system of maintenance grants for hours flown and bonus payments for licences obtained.

During the year 1959-60, the flying training organizations (non-profit aero clubs and commercial flying schools) earned bonuses in respect of 351 private pilot licences, 65 commercial pilot licences and 33 initial instructor ratings. Subsidized hours flown by aero clubs and flying schools numbered 83,899, and the total earnings of all organizations amounted to £183,495. An overall limit placed on the subsidy restricted the total payments to £145,000. There were 34 aero clubs and 7 commercial flying training schools in operation during the year, and, in addition to subsidized civil flying, some 17,320 unsubsidized civil hours and 4,441 service training hours were flown; in all, a total of 105,660 hours.

7. Gliding Clubs.—For the year 1959-60, a total subsidy of £3,000 was distributed to member clubs of the Gliding Federation of Australia, on the basis of £1,500 for membership and £1,500 for gliding certificates issued. In addition, the Federation received a grant of £1,000 towards the cost of operation of its school for instructors and engineers.

8. Airways Engineering.—In the field of airways engineering, which includes the provision of radio navigational facilities, radiocommunication systems, and airport lighting systems, steady progress has continued through 1959-60. A five year plan has been developed for extension of radiocommunication networks to cater for increases in traffic, number of aircraft and increased speed of aircraft. During 1959-60, the main portions of the plan completed included—(a) Darwin to Perth radio teletype network; (b) Port Moresby remote receiving station; (c) Cairns remote receiving station; (d) Mount Canobolas V.H.F. repeater station; (e) V.H.F. point to point network linking Sydney Airways Operations Centre to Mount Canobolas, Sydney remote transmitter station, Sydney remote receiving station, Katoomba and Kings Tableland repeater stations. Mount Canobolas is the main V.H.F. repeater station for Air/Ground/Air communications west of the Blue Mountains and provides direct speech from Sydney to aircraft as far away as Hay, Benalla and Tamworth.

In the field of radio navigational aids the following additional facilities were installed:—3 distance measuring devices, 4 non-directional beacons, 1 visual aural range and 1 visual omni range.

In the field of air traffic control engineering new control towers have been commissioned at Adelaide and Brisbane airports.

9. Meteorological Services.—The Department of Civil Aviation is the greatest user of meteorological services in the Australian Commonwealth and its territories, and therefore the requirements for civil aviation purposes have played a big part in determining the form of meteorological organization that exists at the present time. The Department and the Commonwealth Bureau of Meteorology have completed working arrangements designed to meet the very precise requirements of modern civil aviation in Australia, which specify the standards of service, times and places of operation and facilities required for the provision of meteorological services for civil aviation.

10. Search and Rescue.—On 1st November, 1958, the Department of Civil Aviation assumed full responsibility for co-ordination of search and rescue activity throughout all Australian flight information regions except Darwin, where by arrangement with the Royal

Australian Air Force, search and rescue is co-ordinated by the Officer Commanding. However, in this region, too, the Department will soon be taking on full search and rescue co-ordination responsibilities. The Department also arranges for the availability of search and rescue facilities.

Particulars of system and methods of operation are given in previous issues of the Year Book.

11. *Statistical Summaries.*—(i) *Registrations, Licences, etc.* The following table provides a summary of the civil aviation registrations and licences in force in Australia at 30th June in each of the years 1956 to 1960.

CIVIL AVIATION: REGISTRATIONS, LICENCES, ETC., AUSTRALIA.(a)

Particulars.	At 30th June—				
	1956.	1957.	1958.	1959.	1960.
Registered aircraft owners ..	437	485	570	642	745
Registered aircraft ..	934	1,054	1,180	1,246	1,360
Pilots' Licences—					
Private ..	2,453	2,592	2,628	2,801	3,001
Commercial ..	578	709	845	910	948
Senior Commercial ..	76	99	100	130	132
Helicopter (Commercial) ..	11	21	18	17	30
Student ..	3,272	3,397	3,493	3,465	3,710
1st Class Airline Transport	600	606	656	652	618
2nd " " "	9	7	(b) 389	389	418
3rd " " "	394	414			
Navigators' Licences—					
Flight Navigator ..	177	187	176	177	168
Radio Operators' Licences—					
1st Class Flight Radio-Telegraphy Operator ..	75	69	63	56	55
Flight Radio-Telephone Operator ..	1,386	1,574	1,823	2,203	2,651
Flight Engineers' Licences ..	94	116	176	189	193
Aircraft Maintenance Engineers' Licences ..	1,818	1,915	2,016	2,266	2,382
Aerodromes, Australia—					
Government(c) ..	188	169	168	168	149
Licensed(d) ..	301	313	311	304	323
Flying Boat Bases(e) ..	13	13	13	13	13

(a) Except for aerodromes and flying-boat bases, includes the Territory of Papua and New Guinea.
 (b) 3rd class abolished, and existing licences became 2nd class. (c) Under the control and management of the Department of Civil Aviation. (d) Aerodromes under the control and management of a municipality, shire, station owner, private individual, etc. Includes emergency aerodromes. (e) Includes alighting areas.

(ii) *Types of Aircraft on the Australian Register.* At 31st December, 1960, there were 1,439 aircraft on the Australian register, including aircraft based in New Guinea and Papua. Of these, 168 were engaged in regular public transport, and included 7 Boeing 707, 3 Bristol Freighter, 5 Convair 440, 59 Douglas DC3, 8 Douglas DC4 (Skymaster), 4 Douglas DC6B, 17 Fokker Friendship, 10 Lockheed Electra, 10 Lockheed Super Constellation, and 21 Vickers Viscount. At the same date there were 304 aircraft available for charter, including 47 Auster, 106 Cessna, 44 de Havilland and 39 Piper. Aircraft used for private purposes numbered 576, of which Auster (137), Cessna (117), and de Havilland (123) were the most numerous. Aircraft used for purposes such as flying school training, aerial agricultural work, etc., numbered 391, of which de Havilland (272) were the most numerous, including 199 DH82 Tiger Moth.

(iii) *Operations of Regular Internal Services.* The next table summarizes the flying activities of regular internal services operating within Australia during each of the years 1955–56 to 1959–60.

**CIVIL AVIATION: OPERATIONS OF REGULAR INTERNAL SERVICES,
AUSTRALIA.(a)**

Particulars.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
Hours flown	251,900	251,139	237,981	229,396	225,050
Miles '000	43,701	42,120	40,533	40,287	43,199
Paying passengers	2,020,380	2,125,338	2,122,794	2,235,070	2,660,412
Paying passenger-miles '000	827,885	891,196	898,542	944,379	1,132,517
Freight—					
Tons(b)	84,446	75,092	70,003	62,755	65,402
Ton-miles(b) '000	38,909	36,330	32,987	28,841	29,240
Mail—					
Tons(b)	2,478	2,514	2,642	2,727	4,825
Ton-miles(b) '000	1,357	1,404	1,446	1,472	2,567

(a) Includes only services operating within the Australian mainland and Tasmania.
of short tons (2,000 lb.).

(b) In terms

(iv) *Operations of Oversea Services wholly or partly Australian-owned.* The following table furnishes a summary of oversea services, wholly or partly owned by Australian interests, during the years 1955-56 to 1959-60. This table incorporates aggregate particulars of all traffic originating on oversea services of Qantas Empire Airways Limited and Tasman Empire Airways Limited, which, in the case of Qantas, includes considerable traffic which does not enter Australia. The table also includes traffic between Australia and New Guinea and Australia and Norfolk Island.

CIVIL AVIATION: OPERATIONS OF OVERSEA SERVICES.(a)

Particulars.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
Route miles (unduplicated) at 30th June ..	58,618	62,675	71,729	74,704	76,125
Hours flown	50,665	56,939	63,917	68,811	54,668
Miles '000	12,028	13,514	15,267	16,486	16,992
Paying passengers	131,934	155,618	164,634	176,120	232,714
Paying passenger-miles '000	383,930	476,831	501,388	534,728	720,099
Freight—					
Tons(b)	2,990	2,957	3,205	3,431	5,150
Ton-miles(b) '000	10,494	11,203	12,051	15,381	24,625
Mail—					
Tons(b)	1,491	1,622	1,749	1,647	2,015
Ton-miles(b) '000	8,458	9,450	9,789	8,834	10,351

(a) Airlines wholly or partly owned by Australian interests.

(b) In terms of short tons (2,000 lb.).

(v) *Accidents and Casualties.* The number of accidents involving aircraft on the Australian register, in which persons were killed or injured, is shown in the following table for the years 1955-56 to 1959-60.

CIVIL AVIATION: ACCIDENTS INVOLVING AUSTRALIAN AIRCRAFT.(a)

Particulars.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
Number(b)	31	37	35	39	43
Persons killed	22	24	28	21	44
Persons injured	27	36	31	30	42

(a) Includes accidents and casualties in the Territory of Papua and New Guinea.
all accidents irrespective of whether they involved death or injury.

(b) Includes

12. Territory of Papua and New Guinea.—For brief particulars of civil aviation in Papua and New Guinea see Chapter V.—The Territories of Australia, pages 144 and 151.

I. POSTS; TELEGRAPHS; TELEPHONES; OVERSEA TELECOMMUNICATION SERVICES.

NOTE.—In this Division particulars for the Australian Capital Territory are included with those for New South Wales, while the South Australian figures include particulars for the Northern Territory unless otherwise indicated.

§ 1. General.

1. **The Postmaster-General's Department.**—Under the provisions of the Post and Telegraph Act 1901, the Department was placed under the control of the Postmaster-General. The Director-General of Posts and Telegraphs controls the Department under the Postmaster-General, whilst the principal officer in each State is the Director of Posts and Telegraphs.

The Postmaster-General's Department is responsible for the control and operation of postal, telegraphic and telephonic services throughout Australia, and for the provision and operation of the transmitters and technical facilities required for broadcasting and television services by the Australian Broadcasting Commission (*see* pages 578–83). It also co-operates with the Overseas Telecommunications Commission (*see* page 575) in providing facilities for communication with overseas countries. Subsidiary to its major activities, the Postmaster-General's Department performs a number of important functions for other Commonwealth and State departments, including the payment of pensions, child endowment, military allotments, etc., the provision of banking facilities on behalf of the Commonwealth Savings Bank, the sale of tax and duty stamps, the collection of land tax, and other services.

2. **Postal Facilities.**—(i) *Relation to Area and Population.* The following statement shows the number of post offices, the area in square miles and the number of inhabitants to each post office (including non-official offices), and the number of inhabitants to each 100 square miles in each State and in Australia at 30th June, 1960.

POSTAL FACILITIES: RELATION TO AREA AND POPULATION AT 30th JUNE, 1960.

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aust.
Number of post offices(a)	2,540	2,257	1,263	913	634	511	8,118
Number of square miles of territory per office	122	39	528	990	1,539	51	366
Number of inhabitants per office ..	1,528	1,281	1,159	1,059	1,152	680	1,266
Number of inhabitants per 100 square miles	1,250	3,290	219	107	75	1,325	346

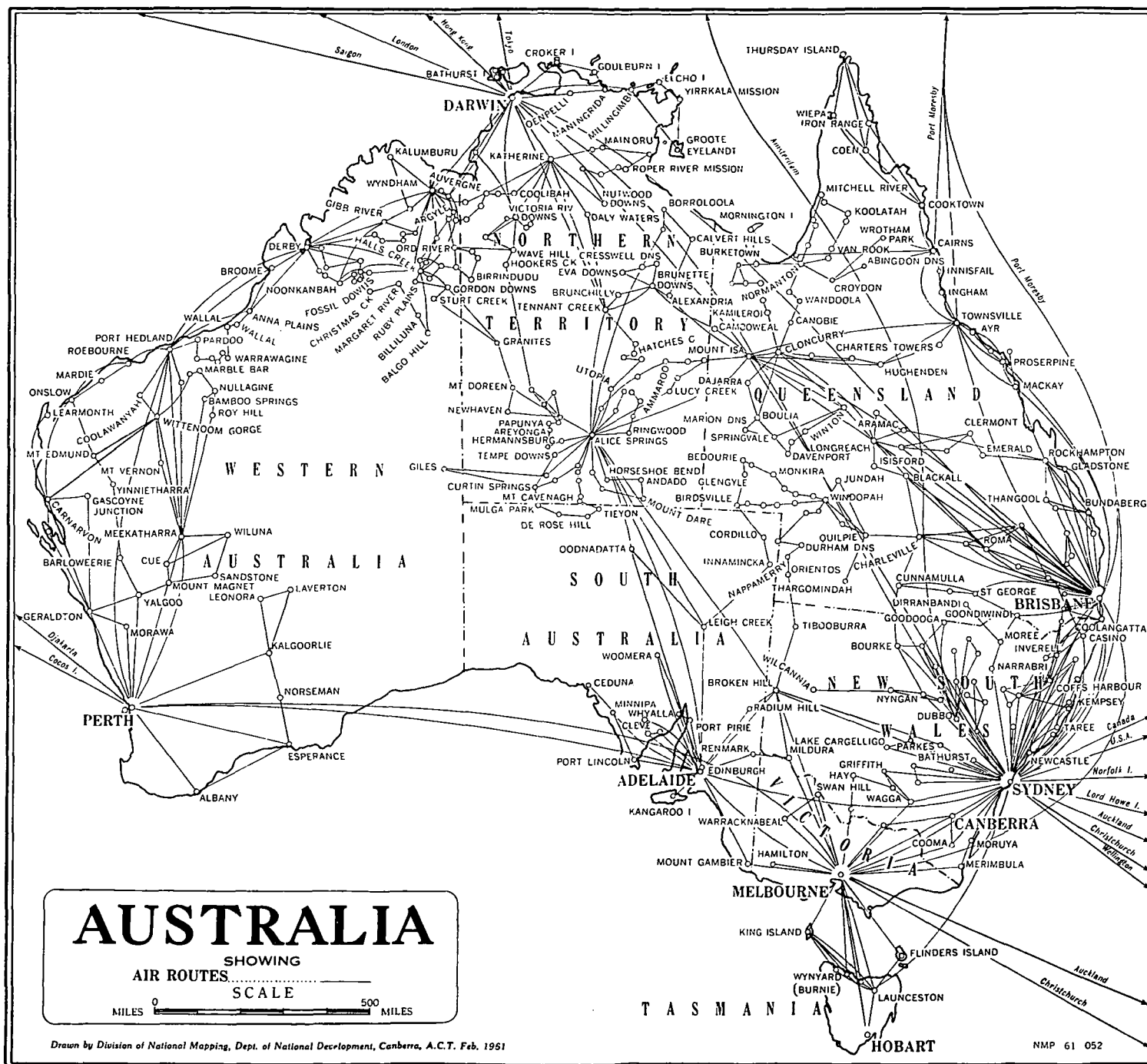
(a) "Official", "semi-official", and "non-official" offices.

The foregoing table does not include "telephone" offices at which no postal business is transacted.

(ii) *Number of Offices.* The following table shows the number of post offices (exclusive of telephone offices) in each State at 30th June, 1960.

NUMBER OF POST OFFICES AT 30th JUNE, 1960.

Type of Office.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Official and Semi-official ..	513	320	225	169	148	52	1,427
Non-official	2,027	1,937	1,038	744	486	459	6,691
Total	2,540	2,257	1,263	913	634	511	8,118



(iii) *Employees and Mail Contractors.* The number of employees and mail contractors in the Central Office and in each of the States at 30th June, 1960 is given in the following table:—

**NUMBER OF POSTAL EMPLOYEES AND MAIL CONTRACTORS AT
30th JUNE, 1960.**

Particulars.	Central Office.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aust.
Employees ..	1,305	35,803	26,739	14,119	9,500	6,737	3,751	97,954
Mail Contractors ..	..	2,057	1,164	1,218	370	295	244	5,348

3. *Gross Revenue, Branches—Postmaster-General's Department.*—(i) *States, 1959–60.* The gross revenue (actual collections) in respect of each branch of the Department during the year 1959–60 is shown in the following table:—

**POSTMASTER-GENERAL'S DEPARTMENT: GROSS REVENUE, 1959-60.(a)
(£'000.)**

Source.	Central Office.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Postage ..	b 1,313	15,413	11,140	4,743	3,295	2,338	925	39,167
Telegraphs ..	100	2,201	1,689	1,278	743	590	203	6,804
Telephones ..	68	28,377	21,110	9,304	6,352	4,004	1,994	71,209
Money order commission and poundage on postal notes ..	..	466	294	120	115	63	30	1,088
Private boxes and bags ..	..	97	63	48	32	23	13	276
Miscellaneous ..	2	1,188	980	389	238	184	106	3,087
Total ..	1,483	47,742	35,276	15,882	10,775	7,202	3,271	121,631

(a) The figures in this table relate to revenue actually collected during the year as recorded for Treasury purposes. (b) Revenue from airmail services.

(ii) *Australia.* The following table shows the gross revenue (actual collections) of the Department for each of the five years 1955–56 to 1959–60:—

**POSTMASTER-GENERAL'S DEPARTMENT: GROSS REVENUE, AUSTRALIA.(a)
(£'000.)**

Source.	1955–56.	1956–57.	1957–58.	1958–59.	1959–60.
Postage ..	26,581	29,464	31,339	33,166	39,167
Telegraphs ..	4,961	5,904	6,169	6,321	6,804
Telephones ..	44,351	51,002	55,344	59,717	71,209
Money order commission and poundage on postal notes ..	934	926	932	956	1,088
Private boxes and bags ..	185	240	247	258	276
Miscellaneous ..	2,329	2,538	2,745	3,049	3,087
Total ..	79,341	90,074	96,776	103,467	121,631

(a) See note (a) to previous table.

4. *Expenditure, Postmaster-General's Department.*—(i) *States.* The following table shows, as far as possible, the distribution of expenditure (actual payments) in each State during 1959–60, as shown by records kept for Treasury purposes. The table must not be regarded as a statement of the working expenses of the Department, since items relating to new works, interest, etc., are included therein.

**POSTMASTER-GENERAL'S DEPARTMENT: DISTRIBUTION OF
EXPENDITURE, 1959-60.(a)**

(£'000.)

Particulars.	Central Office.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aust.
Expenditure from Ordinary Votes—								
Salaries and payments in the nature of salary	701	18,164	13,079	7,058	4,485	2,935	1,752	48,174
General expenses	121	2,153	1,501	562	455	307	156	5,255
Stores and material	45	776	651	383	365	211	132	2,563
Mail services	(b) 5,325	1,726	908	860	438	253	127	9,637
Engineering services (other than capital works)	1,178	15,083	10,973	5,670	3,514	2,703	1,483	40,604
Other services	108	..	..	..	..	..	..	108
Total	7,478	37,902	27,112	14,533	9,257	6,409	3,650	106,341
Rent, repairs, maintenance] .. ..	.. 4	478	445	170	151	79	51	1,374
Proportion of audit expenses .. ..	.. ..	22	16	9	6	4	2	63
Capital works and services—								
Telegraph and telephone	70	14,119	10,604	3,767	3,520	2,395	1,183	35,658
New buildings, etc. .. ..	..	1,542	1,153	643	577	187	177	4,279
Other expenditure, not allocated to States	(c) 3,816	..	..	..	..	..	..	3,816
Grand Total	11,368	54,063	39,330	19,122	13,511	9,074	5,063	151,531

(a) The figures in this table represent actual payments made during the year as recorded for Treasury purposes. (b) Expenditure on airmail services. (c) Includes expenditure not apportioned to States, i.e., interest on loans, £766,000; sinking fund, £647,000; superannuation contributions, £2,398,000; transferred officers' pensions and allowances, £2,000 and pensions and retiring allowances, £3,000.

(ii) *Australia.* The following table shows the distribution of expenditure (actual payments) of the Department for Australia as a whole for each of the years 1955-56 to 1959-60:—

POSTMASTER-GENERAL'S DEPARTMENT: EXPENDITURE, AUSTRALIA.(a)

(£'000.)

Particulars.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
Expenditure from Ordinary Votes—					
Salaries and payments in the nature of salary	37,519	39,763	41,802	42,842	48,174
General expenses	3,853	4,292	4,532	4,729	5,255
Stores and material	1,835	2,042	2,332	2,508	2,563
Mail Services	8,053	8,313	8,626	8,741	9,637
Engineering services other than capital works	29,144	31,765	34,353	36,342	40,604
Other services	60	79	84	88	108
Total	80,464	86,254	91,729	95,250	106,341
Rent, repairs, maintenance	1,054	1,118	1,339	1,376	1,374
Proportion of audit expenses	40	45	48	55	63
Capital works and services—					
Telegraph and telephone	24,846	27,452	29,998	32,209	35,658
New buildings, etc.	3,924	3,269	4,313	4,144	4,279
Other expenditure, not allocated to States	3,929	3,779	3,836	3,799	3,816
Grand Total	114,257	121,917	131,263	136,833	151,531

(a) See note (a) to previous table.

5. **Profit or Loss, Postmaster-General's Department.**—The foregoing statements of gross revenue and expenditure represent actual collections and payments made and cannot be taken to represent the actual results of the working of the Department for the year. The net results for each branch, after providing for working expenses (including superannuation, pensions and depreciation) and interest charges including exchange, are shown in the following table for the years 1958–59 and 1959–60.

POSTMASTER-GENERAL'S DEPARTMENT: PROFIT OR LOSS, BRANCHES.
(£'000.)

Particulars.	1959–60.				1958–59.
	Postal.	Tele- phone.	Tele- graph.	All Branches.	All Branches.
Earnings	43,261	75,351	6,975	125,587	105,304
Working Expenses—					
Direct working expenses	37,937	45,537	5,935	89,409	78,519
Management and administration ex- penses	1,525	1,627	347	3,499	3,003
Depreciation	435	10,292	331	11,058	12,194
Superannuation liability and pensions..	2,058	3,339	449	5,846	4,732
Total Working Expenses (excluding Interest)	41,955	60,795	7,062	109,812	98,448
Profit or Loss before charging Interest ..	1,306	14,556	— 87	15,775	6,856
Interest	578	14,427	342	(a) 15,347	813
Profit or Loss after charging Interest ..	728	129	— 429	(b) 428	6,043

(a) Interest on all capital. Prior to 1959–60, interest was payable on loan capital only.
note (a).

(b) See

NOTE.—Minus sign (—) denotes loss.

6. **Fixed Assets.**—The following table shows particulars of the fixed assets of the Postmaster-General's Department from 1st July, 1959 to 30th June, 1960:—

POSTMASTER-GENERAL'S DEPARTMENT: FIXED ASSETS.
(£'000.)

Particulars.	Net Value 1st July, 1959.	Capital Expendi- ture, 1959–60.	Gross Value, 30th June, 1960.	Assets Dis- mantled or Written Off 1959–60.	Net Value, 30th June, 1960.
Telephone and telegraph plant ..	367,806	48,074	415,880	7,955	407,925
Mail-handling plant	720	299	1,019	44	975
Buildings	42,132	4,372	46,504	110	46,394
Motor vehicles	9,225	2,069	11,294	1,211	10,083
Assets subject to direct depreciation(a)	5,305	1,049	6,354	404	5,950
Other fixed assets	18,423	2,203	20,626	332	20,294
Total	443,611	58,066	501,677	10,056	491,621

(a) Includes postal service plant, miscellaneous plant, furniture and office equipment.

The net value of the fixed assets of the Postmaster-General's Department has increased by nearly 54 per cent. from £319,691,000 at 30th June, 1956 to £491,621,000 at 30th June, 1960.

§ 2. Posts.

1. **Postal Matter Dealt With.**—(i) *States, 1959–60.* The following table shows a summary of the postal matter dealt with in each State during the year 1959–60. Mail matter posted in Australia for delivery therein is necessarily handled at least twice, but only the number of distinct articles handled is included in the following table.

POSTAL MATTER DEALT WITH(a), 1959–60.

('000.)

State.	Letters. (b)	News- papers and Packets. (c)	Parcels. (d)	Regis- tered Articles. (e)	Letters. (b)	News- papers and Packets. (c)	Parcels. (d)	Regis- tered Articles. (e)
	Posted for delivery within Australia.				Posted for delivery Overseas.			
New South Wales ..	355,507	102,450	5,909	4,460	34,403	9,813	352	592
Victoria ..	442,606	74,609	4,473	3,239	9,708	3,950	129	177
Queensland ..	192,080	28,296	2,166	1,713	5,640	1,061	41	25
South Australia ..	131,634	12,594	1,237	853	5,289	809	42	64
Western Australia ..	97,875	9,676	934	598	5,587	1,119	25	52
Tasmania ..	40,895	7,509	204	444	305	20	12	8
Australia ..	1,455,679	242,134	14,923	11,307	60,932	16,772	601	918
	Received from Overseas.				Total postal matter dealt with.			
	Letters. (b)	News- papers and Packets. (c)	Parcels. (d)	Regis- tered Articles. (e)	Letters. (b)	News- papers and Packets. (c)	Parcels. (d)	Regis- tered Articles. (e)
New South Wales ..	48,594	35,146	396	1,067	633,586	154,409	6,657	6,119
Victoria ..	21,512	9,131	324	244	473,826	87,690	4,926	3,660
Queensland ..	4,523	4,258	67	58	202,243	33,615	2,274	1,796
South Australia ..	7,696	4,531	59	28	144,619	17,934	1,338	945
Western Australia ..	2,074	5,759	46	45	105,536	16,554	1,005	695
Tasmania ..	1,820	2,100	17	4	43,020	9,629	233	456
Australia ..	86,219	60,925	909	1,446	1,602,830	319,831	16,433	13,671

(a) Number of distinct articles handled.

(b) Includes letters, cards and other postal articles enclosed in envelopes and sorted with letters.

(c) Includes newspapers and postal articles not included in letter mail.

(d) Includes registered, cash on delivery and duty parcels.

(e) Includes registered articles other than parcels.

(ii) *Australia.* The next table shows the total postal matter dealt with in Australia during each of the years 1955–56 to 1959–60.

TOTAL POSTAL MATTER DEALT WITH: AUSTRALIA.

Year.	Letters, Postcards and Letter-cards.		Newspapers and Packets.		Parcels.(a)		Registered Articles other than Parcels.	
	Total ('000.)	Per 1,000 of Mean Population.	Total ('000.)	Per 1,000 of Mean Population.	Total ('000.)	Per 1,000 of Mean Population.	Total ('000.)	Per 1,000 of Mean Population.
1955–56 ..	1,414,222	151,811	291,048	31,243	17,334	1,861	18,376	1,973
1956–57 ..	1,443,337	151,372	306,417	32,136	16,998	1,783	17,007	1,784
1957–58 ..	1,538,509	157,865	323,684	33,213	17,726	1,819	15,566	1,597
1958–59 ..	1,599,400	160,702	317,633	31,914	18,903	1,899	15,156	1,523
1959–60 ..	1,602,830	157,619	319,831	31,452	16,433	1,616	13,671	1,344

(a) Includes registered, cash on delivery and duty parcels.

During 1959–60, the total amounts paid for the carriage of mails, as disclosed by the Profit and Loss Account of the Postal Branch, were as follows:—road £3,842,000; railway £1,351,000; sea £211,000; air—internal £1,091,000, oversea £4,522,000; Grand Total £11,017,000.

2. **Cash on Delivery Parcels Post.**—The Postmaster-General's Department undertakes, upon prepayment of a prescribed commission, to deliver registered articles sent by parcels post within Australia, or between Australia and Lord Howe Island, Norfolk Island, Nauru, the Territory of Papua and New Guinea, or Fiji, to recover from the addressee on delivery a sum of money specified by the sender, and to remit the sum to the sender. The object of the system is to meet the requirements of persons who wish to pay at the time of receipt for articles sent to them, and of traders and others who do not wish their goods to be delivered except on payment.

There were 505,000 such parcels posted in Australia during 1959–60, valued at £1,992,000, and the revenue derived from commission and postage thereon amounted to £197,000. Both number and value of these parcels have decreased substantially and with little interruption in trend since the peak reached in 1950–51 (1,155,000 parcels valued at £2,933,000).

3. **Money Orders and Postal Notes.**—The issue of money orders and postal notes is regulated by sections 74–79 of the Post and Telegraph Act 1901–1950. The maximum amount for which a single money order payable within Australia may be obtained is £40, but additional orders will be issued upon request when larger amounts are to be remitted. The maximum amount permitted to be sent to any person in the dollar area is £A.5 a month and for remittances to countries outside the dollar area, £A.10 a week. A postal note is not available for a sum larger than twenty shillings.

The following table shows the number and value of money orders and postal notes issued and paid in Australia in each of the years 1955–56 to 1959–60.

MONEY ORDERS AND POSTAL NOTES: TRANSACTIONS, AUSTRALIA.

Year.	Money Orders.			Postal Notes.		
	Issued.		Net Commission Received.	Issued.		Poundage Received.
	Number.	Value.	Value.	Number.	Value.	Value.
	'000.	£'000.	£'000.	'000.	£'000.	£'000.
1955–56.. ..	7,638	70,220	495	23,128	10,450	421
1956–57.. ..	8,127	74,542	551	20,332	9,493	377
1957–58.. ..	8,668	78,411	581	18,937	9,155	340
1958–59.. ..	9,420	87,034	643	18,012	8,845	347
1959–60.. ..	9,535	94,335	805	16,492	8,380	324

Of the total money orders issued in Australia during 1959–60, 9,120,000 valued at £92,997,000 were payable in Australia, and 415,000 valued at £1,339,000 were payable overseas. Of the total money orders paid in Australia during 1959–60, 9,136,000 (£92,964,000) were issued in Australia, and 148,000 (£874,000) were issued overseas.

Of the total postal notes paid in Australia during 1959–60, 16,425,000 valued at £8,345,000, 11,807,000 (£6,248,000) were paid in the State in which issued, and 4,618,000 (£2,097,000) were paid in States other than in which issued.

§ 3. Telegraphs.

1. **General.**—A review of the development of telegraph services in Australia up to 1921 appeared in Official Year Book No. 15, page 625, and subsequent developments of importance have been dealt with in later issues. During the past few years substantial improvements in both the speed and grade of telegraph services throughout Australia have been effected, the entire system being subjected to intensive re-organization, and these matters have been dealt with in some detail in recent issues of this Year Book.

2. **Telegraph and Telephone Mileage.**—At 30th June, 1960, the combined single-wire mileages for both telegraph and telephone purposes were:—aerial, underground and submarine cables, 8,393,000 miles; trunk telephone and telegraph cables, 290,000 miles; aerial wires, 1,350,000 miles. There were 121,000 miles of pole routes. Joint use is made of poles for power and telephone reticulation.

3. **Telegraph Offices.**—The numbers of telegraph offices, including railway telegraph offices, in the various States at 30th June, 1960 were:—New South Wales, 3,001; Victoria, 2,303; Queensland, 1,739; South Australia, 983; Western Australia, 970; Tasmania, 570; total, 9,566.

4. **Telegrams Dispatched within Australia.**—The following table shows the number of telegrams dispatched to places within the Commonwealth and to adjacent islands and to ships at sea, according to the class of message transmitted:—

TELEGRAMS DISPATCHED, 1959-60.
(‘000.)

State.	Paid and Collect.							Unpaid (Depart- mental).	Total Tele- grams.
	Ordin- ary.	Meteor- ological.	Urgent.	Radio- grams.	Press.	Letter- grams.	Total.		
New South Wales	6,212	210	289	62	48	24	6,845	250	7,095
Victoria ..	3,911	141	159	6	22	13	4,252	145	4,397
Queensland ..	3,273	208	124	49	28	13	3,695	139	3,834
South Australia	1,499	96	42	17	26	17	1,697	48	1,745
Western Australia	1,428	143	38	80	16	20	1,725	43	1,768
Tasmania ..	439	45	13	1	4	6	508	29	537
Australia ..	16,762	843	665	215	144	93	18,722	654	19,376

The number of telegrams dispatched to places within the Commonwealth and to adjacent islands and to ships at sea has decreased with few interruptions of trend since the peak of 35,970,000 in 1945-46.

5. **International Telegrams.**—For particulars of telegrams received from, and dispatched to, other countries, see § 5, para. 2, p. 576.

§ 4. Telephones.

1. **General.**—Particulars of the total mileage of lines used exclusively for telephone purposes are not available, but are combined with all other line mileage. Particulars of the total single wire mileage used for telephone, trunk and/or telegraph purposes are shown in § 3, para. 2, above. Developments in the telephone system in recent years have been dealt with in previous issues of this Year Book.

In June, 1959, work was commenced on a coaxial cable link between Sydney, Canberra and Melbourne. The undertaking is expected to take three years to complete at a capital outlay of approximately £5 million. Channels will be made available progressively as the work proceeds.

As well as providing the necessary telephone, telegraph, sound broadcasting and television relay channels between Sydney, Canberra and Melbourne, the scheme will enable all telecommunications services along the route to be improved.

2. **Summary.**—Particulars relating to the telephone services in each State at 30th June, 1960 are shown in the following table:—

TELEPHONE SERVICES: SUMMARY, 30th JUNE, 1960.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Exchanges	2,218	1,783	1,364	727	763	391	7,246
Lines connected	577	470	198	136	87	46	1,514
Instruments connected	846	678	263	193	121	63	2,164
(i) Subscribers' instruments	827	663	256	187	118	61	2,112
(ii) Public telephones	8.9	6.1	3.5	2.0	1.6	1.0	23.1
(iii) Other local instruments	9.4	8.3	4.3	3.4	2.4	1.5	29.3
Instruments per 100 of population	21.8	23.4	18.0	19.9	16.6	18.2	21.1

Of the total telephones (2,163,962) in service at 30th June, 1960, 778,423 or 36 per cent. were connected to exchanges situated beyond the limits of the metropolitan telephone networks.

3. **Trunk Line and Local Calls.**—Because of the introduction of a scheme of extended local service areas on 18th May, 1960, whereby many telephone calls which would previously have been short distance trunk calls became local calls, precise statistics distinguishing between local calls and trunk line calls are no longer available. However, estimates of the local and trunk line traffic during 1959–60, on the basis of the system existing prior to the introduction of the new scheme, are as follows:—effective paid local calls, 1,478,000,000; trunk line calls, 134,000,000, representing averages of 994 local calls and 90 trunk calls per line respectively.

4. **Oversea Telephone Services.**—These services are provided by the Overseas Telecommunications Commission (*see* § 5, para. 1) for operation by the Postmaster-General's Department. During the year 1959–60 a new direct service was opened to Wilkes Base in the Antarctic, and a service was also made available to South Korea, via Hong Kong. At 30th June, 1960, telephone calls could be made from Australia direct to 100 oversea countries. International telephone calls to and from Australia numbered 109,791, an increase of 17,805 or 19 per cent. on 1958–59.

5. **World Telephone Statistics, 1960.**—The following table shows the number of telephones in use in various countries with 2 million or more telephones at 1st January, 1960, together with the number per 100 of population and the proportion in each country to the world total.

WORLD TELEPHONE STATISTICS(a) AT 1st JANUARY, 1960.

Country.	Number of Telephones. '000.	Telephones per 100 of Population.	Proportion of Total. (Per cent.)
United States of America(b)	70,597	40	52.8
United Kingdom(c)	7,848	15	5.9
Canada	5,439	31	4.1
Germany, Federal Republic of	5,516	10	4.1
Japan(c)	4,865	5	3.6
France	4,085	9	3.1
U.S.S.R.	4,023	2	3.0
Italy	3,518	7	2.6
Sweden	2,637	35	2.0
Australia	2,122	21	1.6
Other	22,950	(d)	17.2
Total	133,600	(d)	100.0

(a) Partly estimated. Information derived, in the main, from the "World's Telephones" compiled by the American Telephone and Telegraph Company. (b) Excludes Hawaii. (c) At 31st March, 1960. (d) Not available.

§ 5. Oversea Telecommunication Services; Radiocommunication Stations Authorized.

1. **General.**—The establishment, maintenance and operation of radio and cable communication services between Australia and oversea countries is the function of the Overseas Telecommunications Commission (Australia), which was established by the Commonwealth Overseas Telecommunications Act 1946 as Australia's part in a plan for the development of telecommunication services throughout the British Commonwealth. The Act, in order to give effect to this plan, authorized the Commission to acquire for public ownership assets formerly privately owned. Details of the systems of oversea communication in operation in Australia from the early years of the century onward, and of subsequent developments which led eventually to the establishment of the Overseas Telecommunications Commission, were published in Official Year Book No. 37, pages 220–4.

2. *International Telegrams.*—(i) *Number of Telegrams.* The number of telegrams received from and dispatched overseas in each State during 1959–60 is shown hereunder:—

INTERNATIONAL TELEGRAMS, 1959-60.
(’000.)

Particulars.	N.S.W.	Vic.	Q’land.	S. Aust.	W. Aust.	Tas.	Australia.
Received	720	427	(a) 80	71	73	(a) 22	1,393
Dispatched	694	499	91	90	77	21	1,472
Total	1,414	926	171	161	150	43	2,865

(a) Estimated.

The traffic in international telegrams to and from Australia has not varied greatly in recent years.

(ii) *Number of Words.* Particulars of the international business, originating and terminating in Australia, transacted over the cable and radio services during 1959–60 are shown in the following table:—

INTERNATIONAL TELEGRAMS: NUMBER OF WORDS, AUSTRALIA, 1959-60.
(’000 Words.)

Class of Telegram.	Words Transmitted to—			Words Received from—		
	United Kingdom.	Other Places.	Total.	United Kingdom.	Other Places.	Total.
Ordinary	4,863	9,636	14,499	4,036	7,717	11,753
Letter	4,645	11,128	15,773	4,608	9,281	13,889
Press	2,319	1,005	3,324	7,824	2,955	10,779
Government	172	1,015	1,187	733	1,236	1,969
Greetings	705	648	1,353	594	819	1,413
Other . . . . .	..	11	11	..	137	137
Total	12,704	23,443	36,147	17,795	22,145	39,940

Words transmitted to “Other places” included 4,602,753 to the United States of America and 4,615,363 to New Zealand and the Pacific Islands. Words received from “Other places” included 4,146,139 from the United States of America and 5,446,280 from New Zealand and the Pacific Islands.

3. *Oversea Telephone Services.*—See § 4, para. 4, page 575 for particulars of these services.

4. *Coast Stations.*—At 30th June, 1960, there were 82 radio stations established at points around the Australian coast and 14 about the coast of Papua and New Guinea and other External Territories. During the year ended 31st March, 1960, these stations handled 690,429 messages (570,847 paying, 22,492 free traffic and 97,090 meteorological) with a total of 15,417,282 words.

5. Radiocommunication Stations Authorized.—The following table shows particulars of the different classes of radiocommunication stations authorized in Australia and the External Territories at 30th June, 1960. Figures relate to radiocommunication (radio telegraph and radio telephone) stations only; particulars of broadcasting stations and of broadcast listeners' licences are shown on pages 581 and 583.

The number of radiocommunication stations has increased considerably in recent years, having nearly doubled since June, 1956. While the increase is fairly generally distributed, it is perhaps most noticeable in the mobile services stations.

RADIOCOMMUNICATION STATIONS AUTHORIZED, 30th JUNE, 1960.

Class of Station.	N.S.W.	Vic.	Old.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.	Ext. Terr.	Grand Total.
TRANSMITTING AND RECEIVING.											
Fixed(a)—											
Aeronautical	33	6	15	6	14	7	6	1	88	25	113
Services with other Countries ..	52	15	..	..	9	..	..	..	76	12	88
Outpost(b)	199	..	398	129	324	16	157	..	1,223	405	1,628
Other	287	142	164	56	72	31	31	1	784	79	863
Land(c)—											
Aeronautical	22	9	18	6	13	7	5	1	81	16	97
Base—											
Land Mobile Services ..	1,004	690	477	264	154	98	18	17	2,722	18	2,740
Harbour Mobile Services ..	20	15	10	5	28	..	..	..	78	..	78
Coast(d)	18	10	12	11	10	20	1	..	82	14	96
Special Experimental ..	58	48	11	22	17	8	..	1	165	8	173
Mobile(e)—											
Aeronautical .. ..	..	..	..	..	..	..	..	..	(f) 508	36	544
Land Mobile Services ..	9,802	6,027	3,282	2,551	1,591	553	111	270	24,187	73	24,260
Harbour Mobile Services ..	139	105	35	38	57	6	..	..	380	18	398
Outpost .. ..	..	..	..	..	..	..	..	..	(f) 963	50	1,013
Ship .. ..	..	..	..	..	..	..	..	..	2,311	131	2,442
Amateur	1,287	1,258	439	481	275	135	13	27	3,915	72	3,987
<i>Total</i>	12,921	8,325	4,861	3,569	2,564	881	342	318	37,563	957	38,520

RECEIVING ONLY.

Fixed(a)	82	190	79	7	35	1	4	..	398	..	398
Land(c) .. ..	..	..	..	..	..	..	..	..	..	..	..
Mobile(e)	1	34	20	..	..	..	..	..	55	..	55
<i>Total</i>	83	224	99	7	35	1	4	..	453	..	453

TOTAL STATIONS AUTHORIZED.

Grand Total ..	13,004	8,549	4,960	3,576	2,599	882	346	318	(g) 38,016	957	(g) 38,973
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(a) Stations established at fixed locations for communication with other stations similarly established.
 (b) Stations established in out-back areas for communication with control stations such as those of the Royal Flying Doctor Service.
 (c) Stations established at fixed locations for communication with mobile stations.
 (d) Land stations for communication with ocean-going vessels.
 (e) Equipment installed in aircraft (aeronautical), motor vehicles (land mobile services), harbour vessels (harbour mobile services) and ocean-going vessels (ships), and mobile equipment of organizations such as the Royal Flying Doctor Service.
 (f) Stations which cannot be classified according to States, etc.
 (g) Includes 3,782 mobile transmitting and receiving stations, which cannot be classified according to States, etc.

J. BROADCASTING AND TELEVISION.

§ 1. General.

Broadcasting and television services in Australia operate under the Broadcasting and Television Act 1942–1960 and comprise the National Broadcasting Service, the National Television Service, the Commercial Broadcasting Service and the Commercial Television Service. General control of these services is a function of the Australian Broadcasting Control Board (*see below*). Details of each service will be found on pages 578–83. Licence fees for commercial broadcasting and television stations are payable under the Broadcasting and Television Stations Licence Fees Act 1956.

The Australian Broadcasting Control Board, which was constituted on 15th March, 1949, consists of five members (including two part-time), and operates under the Ministerial jurisdiction of the Postmaster-General. Its principal functions, as set out in section 16 of the Broadcasting and Television Act 1942–1960, are to ensure:—(a) that services by broadcasting stations and television stations are provided in accordance with plans prepared from time to time by the Board and approved by the Minister; (b) that the technical equipment and operation of such stations are in accordance with such standards and practices as the Board considers to be appropriate; (c) that adequate and comprehensive programmes are provided by the stations to serve the best interests of the general public; and (d) that sources of interference to the transmission and reception of broadcast and televised programmes be detected and that assistance be given in the detection and prevention of such interference. In addition, the Board may exercise such other functions as are prescribed in relation to broadcasting stations and television stations. For information as to the powers granted to the Board in order to perform its functions *see* Official Year Book No. 46 and earlier issues.

The Australian Broadcasting Commission, which consists of seven members, at least one of whom must be a woman, controls the activities of the National Broadcasting Service and the National Television Service.

§ 2. Broadcasting.

1. **The National Broadcasting Service.**—(i) *General.* In sound broadcasting, the programmes of the National Broadcasting Service are provided by the Australian Broadcasting Commission and the provision and operation of transmitters and technical facilities in the studios are the responsibility of the Postmaster-General's Department.

(ii) *Technical Facilities.* At 30th June, 1960, the National Broadcasting Service comprised 66 transmitting stations, as follows:—

*Medium-frequency Stations—**New South Wales—*

2BL and 2FC Sydney, 2BA Bega, 2CO Albury, 2CR Orange, 2GL Glen Innes, 2KP Kempsey, 2LG Lithgow, 2ML Murwillumbah, 2NA and 2NC Newcastle, 2NB Broken Hill, 2NR Grafton, 2NU Tamworth, 2TR Taree, 2WN Wollongong.

Victoria—

3AR and 3LO Melbourne, 3Gi Sale, 3WL Warrnambool, 3WV Horsham.

Queensland—

4QG and 4QR Brisbane, 4AT Atherton, 4GM Gympie, 4QA Mackay, 4QB Maryborough, 4QL Longreach, 4QN Townsville, 4QS Toowoomba, 4QY Cairns, 4RK Rockhampton, 4SO Southport.

South Australia—

5AN and 5CL Adelaide, 5CK Port Pirie, 5LN Port Lincoln, 5MG Mt. Gambier, 5MV Renmark, 5PA Penola, 5WM Woomera.

Western Australia—

6WF and 6WN Perth, 6AL Albany, 6GF Kalgoorlie, 6GN Geraldton,
6NM Northam, 6WA Wagin.

Tasmania—

7ZL and 7ZR Hobart, 7NT Launceston, 7QN Queenstown.

Northern Territory—

8AL Alice Springs, 8DR Darwin.

Australian Capital Territory—

2CN and 2CY Canberra.

Papua—

9PA Port Moresby.

High-frequency Stations—

VLI Sydney, New South Wales, VLG, V LH and VLR Lyndhurst, Victoria,
VLM and VLQ Brisbane, Queensland, VLW and VLX Perth, Western
Australia, VLT Port Moresby, Papua.

In addition to the services shown above, there are four experimental frequency modulation services operating in Sydney, Melbourne, Brisbane and Adelaide.

The medium-frequency transmitters operate in the broadcast band 555 to 1,605 kilocycles per second. The high-frequency stations, using frequencies within the band 3 to 30 megacycles per second, provide service to listeners in sparsely populated parts of Australia such as the north-west of Western Australia, the Northern Territory, and northern and central Queensland, and in Papua and New Guinea and adjacent islands.

Many of the programmes provided by country stations are relayed from the capital cities, high-quality programme transmission lines being used for the purpose. A number of programme channels are utilized to link national broadcasting stations in the capital cities of Australia, and, when necessary, this system is extended to connect both the national and commercial broadcasting stations.

In June, 1960, 44 of the medium-frequency stations were situated outside the six State capital cities. Additional country stations are to be established, and, when these additions are complete, the medium-frequency and high-frequency stations together will provide for clear reception of the programmes of the National Broadcasting Service in practically every part of Australia.

(iii) *Programme Facilities.* (a) *General.* The programmes of the Australian Broadcasting Commission cover a wide range of activities, which are indicated briefly in the following paragraphs. The proportion of broadcasting time allocated to the various types of programme during 1959–60 was as follows:—Classical Music, 24.8 per cent.; Light Music, 11.8 per cent.; Variety, 19.5 per cent.; News, 7.2 per cent.; Talks, 6.8 per cent.; Sporting, 4.7 per cent.; Parliament, 4.2 per cent.; Youth Education, 3.9 per cent.; Drama and Features, 3.7 per cent.; Religious, 3.7 per cent.; Children's Session, 2.8 per cent.; Rural, 1.7 per cent.; Non-departmental, 5.2 per cent.

(b) *Music.* The A.B.C., in addition to its extensive activities in the field of musical broadcasting, is one of the largest concert-giving organizations in the world. Its regular broadcasts command a large listening audience, and a total of 954,015 people attended A.B.C. concerts during 1959–60. There are symphony orchestras in Sydney, Melbourne, Brisbane, Adelaide, Perth and Hobart, which have developed from the studio broadcasting orchestras set up in 1936.

In 1959–60, the A.B.C. organized 525 public orchestral concerts (including 154 free concerts for school children and 34 free concerts for adults) and 198 public recitals by famous artists throughout the Commonwealth. In 1959, the Czech Philharmonic Orchestra became the first overseas orchestra to visit Australia. It was followed in 1960 by the Boston Symphony Orchestra.

(c) *Drama and Features.* Drama programmes are designed to give listeners opportunities, which they might not otherwise have, of hearing the world's great plays as well as adaptations of the best modern stage plays and also those written specially for broadcasting. The main regular radio drama programmes are broadcast on Sunday afternoons

and Sunday and Monday evenings, and special series of longer plays are also given at various times. In recent years the technique of the feature programme has also been developed. The feature is a form of entertainment which is unique to radio, consisting of specially written programmes designed to present information in an interesting way.

(d) *Youth Education.* The A.B.C. provides a regular series of broadcasts to schools as an addition to normal class-room education. The total number of listening schools at the end of June, 1960 was 9,408 or about 93 per cent. of all schools, State and private, throughout the Commonwealth. (*See also* Chapter XV.—Education, on this subject.)

(e) *Talks.* The aim of the Talks Department is to provide programmes which will keep the listener well informed on current affairs and on general topics. Many of the talks in the first category are now presented in a magazine type of session consisting of a number of short items linked by a narrator. An extension of this type of programme is the documentary. Major controversial topics are covered in sessions such as the "Nation's Forum of the Air" and "I Put it to You". Another session in this type of programme is "News Review", containing comments on the news of the day recorded over landline from all States of the Commonwealth and, in the case of significant world events, from overseas by radio-telephone.

(f) *Rural Broadcasts.* The Rural Broadcasts Department devotes its programmes to weather and market reports and talks, interviews, etc., designed to provide useful information for the man on the land. These programmes are presented on a regional, State and national basis, many being directed to particular districts, because of the diversity of climate and conditions. Separate rural programmes originate at 19 regional stations and are relayed to all other regionals. Other programmes are broadcast throughout each State or on a national relay, depending on whether the information they contain is of general interest or refers only to the rural industries of one State.

During 1959–60, 7,486 talks and interviews on rural topics were broadcast by the A.B.C., as well as 8,684 weather reports and 6,968 interstate and local market reports. In times of emergency, the regular weather reports are supplemented by special services giving flood or fire warnings.

(g) *News.* The Commission collects all its Australian (including Papua and New Guinea) news through its own staff journalists and part-time correspondents. It also maintains a news room in London for the selection and transmission of news obtained from major overseas agencies and has special representatives in South-East Asia. Regional bulletins are broadcast from country centres and also from capital cities to cover near-city districts. Radio Australia (the Overseas Service of the A.B.C.) broadcasts Australian and overseas news daily in English, French, Mandarin, Indonesian, Japanese, Cantonese and Thai, with special attention to Asia and the Pacific. Each day the A.B.C. re-broadcasts two news bulletins from the British Broadcasting Corporation. The A.B.C. broadcasts 160 news bulletins each day, including those given over Radio Australia.

(h) *Other Activities.* The proceedings of the Federal Parliament are broadcast regularly on one of the two national transmitters in each capital city, one in Newcastle and one domestic short-wave station (VLR).

The National Children's Hour, presented seven days a week, is composed of over 40 programme items, including stories, music, games, art, literature, natural history and sport.

In co-operation with the various religious denominations, the A.B.C. broadcasts several religious sessions each week-day in addition to those given on Sundays. These religious broadcasts include relays of normal church services and a variety of special programmes of talks and sacred music. The modern trend towards the use of religious drama is also followed.

The variety and sporting programmes of the A.B.C. provide the lighter side of the service. With its variety session the policy of the A.B.C. is to assist local artists in order to increase the amount of first-class talent in this country, and encouragement is also given to Australian composers of light music.

A comprehensive coverage of sport at home and abroad is provided by the A.B.C. On Saturday afternoons the sporting panel provides listeners with progress results, scores and descriptions from several fields of sport. Events of international interest such as Test matches, the Davis Cup, etc., are covered by simultaneous descriptions from A.B.C. commentators.

2. **The Commercial Broadcasting Service.**—Commercial broadcasting stations are operated under licences granted and renewed by the Postmaster-General after taking into consideration any recommendations which have been made by the Broadcasting Control Board. The initial period of a licence is five years and renewals are granted for a period of one year. The fee payable for a licence is £25 on the grant of the licence, and thereafter £25 a year plus one per cent. of the gross earnings of the station from the broadcasting of advertisements or other matter during the preceding financial year. Licensees of these stations rely for their income on the broadcasting of advertisements and other publicity.

3. **Oversea Broadcasting Service.**—There are three high-frequency stations at Shepparton, Victoria (VLA, VLB, VLC) which provide the overseas service known as "Radio Australia". As in the case of the National Broadcasting Service, these stations are maintained and operated by the Postmaster-General's Department and their programmes are arranged by the A.B.C. During certain periods, station VLG Lyndhurst is also used for the purpose of overseas transmission. The programmes, which give news and information about Australia presented objectively, as well as entertainment, are directed mainly to South-East Asia and the Pacific. The overseas audience has grown very substantially in recent years, as evidenced by a large and increasing number of letters from listeners abroad.

4. **Broadcasting Stations.**—The following table shows the number of broadcasting stations in operation at 30th June, 1960:—

BROADCASTING STATIONS, 30th JUNE, 1960.

Type of Station.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Papua and New Guinea.	Total.
National—										
Medium Frequency ..	16	5	12	8	7	4	2	2	1	57
High Frequency—										
Amplitude Modulation ..	1	3	2	..	2	..	..	..	1	9
Frequency Modulation ..	1	1	1	1	..	..	..	..	..	4
Commercial ..	37	20	20	8	14	8	..	1	..	108

A table showing the call sign, location, frequency and aerial power of broadcasting stations licensed at 30th June, 1960, is shown in *Transport and Communication*, Bulletin No. 51.

§ 3. Television.

1. **General.**—Television services in Australia operate under the Broadcasting and Television Act 1942–1960 and comprise the National Television Service and the Commercial Television Service.

2. **The National Television Service.**—(i) *General.* The A.B.C. provides the programmes for the National Television Service from stations provided and operated by the Postmaster-General. Six stations have been established—ABN Sydney, commenced operation, 5th November, 1956; ABV Melbourne, commenced operation, 18th November, 1956; ABQ Brisbane, commenced operation, 2nd November, 1959; ABS Adelaide, commenced operation,

11th March, 1960; ABW Perth, commenced operation, 7th May, 1960; and ABT Hobart, commenced operation, 4th June, 1960—each of which operates on Channel 2. Each station operates on a frequency of 64.25 megacycles a second for vision and 69.75 megacycles a second for sound.

(ii) *Programme Facilities.* (a) *General.* The television programmes provided by the A.B.C. cover a wide range of activities. The proportion of television time allocated among the A.B.C.'s various departments to 30th June, 1960 was as follows:—Drama and Features, 21.9 per cent.; Talks Department, 18.8 per cent.; Sport, 11.4 per cent.; Children's Session, 10.0 per cent.; News, 8.5 per cent.; Variety, 7.8 per cent.; Youth Education, 4.3 per cent.; Rural Services, 2.4 per cent.; Religion, 2.3 per cent.; Classical Music, 2.0 per cent.; Light Music, 0.3 per cent.; Non-departmental (including trade demonstration films), 10.3 per cent. A summary of the activities of the departments in the field of television is given in the following paragraphs. Transmission hours in Sydney, Melbourne, Brisbane, Adelaide, Perth and Hobart, for the 12 months ended 30th June, 1960, totalled 9,243.

(b) *Talks.* In television, talks cover a very wide field, ranging from commentaries on international affairs to panel games and outside telecasts of public events. Discussions, topical interviews, magazine programmes, women's programmes, demonstrations and film and studio documentaries are all part of the regular output.

(c) *Drama and Features.* A considerable proportion of television time is devoted to drama and features, and "live" television plays featuring Australian artists may usually be seen fortnightly in all State capitals. During 1959, a Television Writers' Workshop was formed to give writers practical advice on television writing. Of 23 live plays produced during the year, 12 were by Australian authors and, in addition, seven half-hour episodes of a locally written serial, "Stormy Petrel"—based on the life of Governor Bligh—were telecast.

(d) *Music.* During 1957, the A.B.C.'s musical activities extended to the field of television. A number of public concerts and studio performances were successfully telecast and there is reason to believe that the new medium will contribute to the further development of musical appreciation in Australia.

(e) *Rural Services.* The emphasis has been on providing information for consumers and on giving city viewers, by means of films, demonstrations, etc., a picture of Australia's rural industries. Regular programmes featuring many facets of Australian agriculture and livestock activities have already been given, and this work will be developed as further facilities become available. Weather reports and forecasts are also telecast on six evenings a week.

(f) *Youth Education.* The A.B.C. provides a television programme for very young children each week-day, under the title "Kindergarten Playtime". Experimental television programmes for schools are being presented.

(g) *News.* Television news bulletins and newsreels have been included in the programmes presented in both Sydney and Melbourne since the television services began in November, 1956. The A.B.C. is a member of the British Commonwealth International Newsfilm Agency (B.C.I.N.A.), through which it receives world-wide television newsfilm and provides newsfilm of Australian origin for international distribution.

(h) *Other Activities.* Special television programmes are presented for children, including filmed material obtained on an exchange basis from overseas television organizations. Special religious services and programmes have also been televised. Outside television cameras have covered a number of sporting events, including the Olympic Games, Davis Cup tennis, Test and Sheffield Shield cricket and swimming championships.

3. *The Commercial Television Service.*—Commercial television stations are operated under licences granted by the Postmaster-General. Licences for commercial television stations have been granted as follows:—Sydney—ATN (Channel 7), TCN (Channel 9); Melbourne—HSV (Channel 7), GTV (Channel 9); Brisbane—BTQ (Channel 7), QTQ (Channel 9); Adelaide—ADS (Channel 7), NWS (Channel 9); Perth—TVW (Channel 7) and Hobart—TVT (Channel 6). The stations commenced operations on the following dates:—ATN, 2nd December, 1956; TCN, 16th September, 1956; HSV, 4th November, 1956; GTV, 19th January, 1957; QTQ, 16th August, 1959; NWS, 5th September, 1959; TVW, 16th October, 1959; ADS, 24th October, 1959; BTQ, 1st November, 1959, and TTV, 23rd May, 1960.

The initial grant of a licence is for a period of five years, and thereafter the licence is renewable annually. The fee payable is £100 for the first year, and thereafter £100 a year plus one per cent. of the station's gross earnings from the televising of advertisements or other matter during the preceding financial year.

4. **Extension of Television Services.**—The Government has approved the establishment of a national and a commercial television station in each of the following provincial and country areas:—

New South Wales—

Newcastle-Hunter River, Illawarra, Richmond-Tweed Heads, Central Tablelands.

Victoria—

Ballarat, Bendigo, Latrobe Valley, Goulburn Valley.

Queensland—

Darling Downs, Rockhampton, Townsville.

Tasmania—

North Eastern Tasmania.

Australian Capital Territory—

Canberra.

When the stations commence operation, it is estimated that 75 per cent. of the Australian people will be able to receive a television service.

§ 4. Licences, etc.

1. **Broadcast Listeners' and Television Viewers' Licences.**—(i) *General.* Broadcast listeners' and television viewers' licences are issued at post offices in accordance with the provisions of the Broadcasting and Television Act 1942–1960, which stipulates that, except as prescribed, a person shall not use, maintain or have in his possession a broadcast or television receiver unless there is in force a licence which applies to that receiver. A broadcast listener's licence authorizes the operation of any broadcast receiver, and a television viewer's licence any television receiver, which is:—(a) in the possession of the holder of a licence, or of a member of his family, at the address specified in the licence and/or ordinarily kept at that address; (b) installed in a vehicle which is ordinarily in the possession of the holder, or of a member of his family, and is ordinarily kept at that address while not in use.

The fee for a broadcast listener's licence or a renewal thereof is:—Zone 1, £2 15s.; Zone 2, £1 8s. Zone 1 is the area within approximately 250 miles of specified broadcasting stations and Zone 2 is the remainder of the Commonwealth. A television viewer's licence costs £5.

A licence may be granted at reduced rates to persons who are in receipt of certain types of pension and are otherwise qualified to receive this concession.

A licence may be granted free of charge to a blind person over 16 years of age or to a person or authority conducting a school. Inmates of a hospital or charitable institution are covered by the licence held by the institution.

(ii) *Licences in Force.* (a) *Broadcast Listeners'.* The following table shows the number of broadcast listeners' licences in force at five year intervals from 1925 to 1960.

BROADCAST LISTENERS' LICENCES IN FORCE.

At 30th June—	N.S.W.(a)	Vic.	Qld.	S.A.(b)	W.A.	Tas.	Aust.
1925	34,857	20,290	1,267	3,331	3,562	567	63,874
1930	111,253	140,072	23,335	25,729	5,755	6,048	312,192
1935	279,166	237,247	67,546	76,515	41,257	20,121	721,852
1940	438,256	348,264	151,152	124,928	87,790	42,191	1,212,581
1945(c) ..	548,074	394,315	180,089	146,611	98,210	47,930	1,415,229
1950(c) ..	683,271	505,078	260,033	195,261	133,199	64,369	1,841,211
1955	746,050	549,690	293,542	223,593	150,199	71,602	2,034,676
1960	832,659	606,587	344,198	249,148	171,693	78,900	2,283,185

(a) Includes the Australian Capital Territory. (b) Includes the Northern Territory. (c) Excludes licences for receivers in excess of one. These licences were introduced in July, 1942, and were abolished on 31st December, 1951.

Of the 2,283,185 broadcast listeners' licences in force at 30th June, 1960, 1,343,741 or 59 per cent. were held by persons living in metropolitan areas and 939,444 or 41 per cent. by persons in country areas.

(b) *Television Viewers*'. The following table shows the number of television viewers' licences in force each year at 30th June and 31st December, 1957 to 1960.

TELEVISION VIEWERS' LICENCES IN FORCE.

Date.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Aust.
30th June, 1957 ..	28,912	44,986	..	..	..	{ 11	73,909
31st December, 1957 ..	74,627	91,922	..	..	..	{ 27	166,576
30th June, 1958 ..	143,422	147,721	..	..	..	{ 43	291,186
31st December, 1958 ..	232,473	222,172	..	..	..	{ 51	454,696
30th June, 1959 ..	300,871	270,073	360	6,124	..	{ 74	577,502
31st December, 1959 ..	358,544	307,950	27,590	34,060	9,621	{ 90	737,855
30th June, 1960 ..	409,334	353,091	67,337	84,967	35,604	{ 4,662	954,995
31st December, 1960 ..	456,989	384,375	96,644	110,658	57,792	{ 14,362	1,120,820

(a) These licences were for television sets in the north coast area of Tasmania which were able to receive programmes from Victoria.

Of the 954,995 television viewers' licences in force at 30th June, 1960, 834,909 or 87.4 per cent. were held by persons living in metropolitan areas.

CHAPTER XV.

EDUCATION.

§ 1. Introduction.

An account of the development of the Australian school system up to 1929 may be found in Official Year Books Nos. 1, 2, 17 and 22. In Official Year Book No. 40, a reasonably complete review of changes which occurred up to 1951 and of the practices then current was presented from material furnished in the main by the Commonwealth Office of Education.

In the sections which follow, the information relating to the educational programme applies mainly to the year 1960. The statistics given in the tables relate to 1959.

§ 2. Education in Australian Schools.

1. *Administration.*—Primary and secondary education in Australia is provided by both government and non-government schools. Education in government schools is mainly the responsibility of the State Governments, but the Commonwealth Government provides financial assistance to students and meets the full cost of such education in Commonwealth Territories (see Chapter V.). Non-government schools are mainly conducted by religious denominations, subject to certain government controls (see para. 4, p. 587). In general, non-government schools charge fees and are not usually assisted financially by State or Commonwealth Governments.

Although there is a tendency towards regional administration, State educational administration is centralized. The permanent head of the Education Department in each State is responsible to the Minister for Education. Contact with the schools is maintained principally through Inspectors or Superintendents. Departments are usually divided into primary, secondary and technical divisions. Some technical colleges are in a large measure autonomous. Universities are independent foundations, although much of their income is derived from State and Commonwealth grants.

Examination Boards, which represent universities, Education Departments and non-government schools, control public examinations and syllabuses, and curriculum committees prepare primary and secondary curricula. State Ministers for Education meet periodically as the Australian Education Council, and Directors of Education meet annually to discuss matters of common interest.

2. *The School System.*—(i) *Compulsory.* In all States, there is legislation for compulsory school attendance. The original Victorian Education Act was passed in 1872, followed by similar Acts in Queensland (1875), South Australia (1875), New South Wales (1880), and Tasmania and Western Australia (1893).

In 1960, the ages between which children were required by law to attend school were as follows:—New South Wales, 6 to 15 years; Victoria, 6 to 14 years; Queensland, 6 to 14 years; South Australia, 6 to 14 years (children may not leave school until the end of the term during which they reach the age of 14 years); Western Australia, 6 to 14 years; and Tasmania, 6 to 16 years. The employment of children of school age is prohibited by law.

In Victoria, South Australia, and Western Australia, amendments to the Acts have provided for the raising of the school leaving age to 15 years, but to date this legislation has not been proclaimed.

(ii) *Non-Compulsory.* Modern development has demanded a diversity of skills and a general raising of the educational level of the population. The trend towards raising of the school leaving age and the tendency everywhere for children to stay longer at school have been expressions of public realization of this. In recent years, less than half of all children left school when they reached the age limit for compulsory attendance. Indeed, a substantial proportion now proceeds to some form of further education beyond secondary school, either as full-time students, as part-time apprentices or trainees released during the day by their employers, or as part-time evening students.

In the early years of government provision of education, the main emphasis was on the primary school, which catered for children receiving compulsory education and offered a

course largely confined to the "tool" subjects, reading, writing and arithmetic. However, a process of extension and differentiation both at the bottom—infants' schools and kindergartens—and at the top—secondary schools—was well under way during the early years of this century.

3. **The Educational Ladder.**—(i) *Infants' Schools.* It is now customary, although not compulsory, for children to begin school when they are five years old. In larger primary schools they enter the infants' school, and in smaller schools infants' classes, which occupy two or three years, the first year in some States being called "Kindergarten" or "Preparatory". The emphasis in the infants' classes is very much on general development, on play activities and on the informal aspects of the educational processes. Whether in a separate establishment or as a part of a primary school, there is a gradual move towards formal instruction in infants' departments. At the end of the period, most children are able to read with some fluency, carry out simple arithmetical operations founded on the basic number facts, and can write in pencil. In addition, they have acquired skills with art materials and the like. A good deal of the instruction is carried on through activity methods, involving, for example, dramatic work, puppetry, and school "shops". Children then pass at about the age of 8 or 9 to the more formal primary school, in which they normally spend four or five years.

(ii) *Primary Schools.* The main emphasis in the primary school as distinct from the infants' school still lies on the "tool" subjects (reading, writing and arithmetic) and, in more recent years, on oral language, but the methods of teaching have undergone considerable changes. Changes in the purpose and outlook of educationists, and the raising of the professional standards of teachers, have made for greater freedom for pupils and teachers, some departure from the methods of mass instruction, and the closer linking of the curriculum with the child's social environment.

In general, there is now less emphasis on results than formerly, and basic skills are taught at a somewhat later stage. At the same time, the curriculum has been broadened. More individual instruction has led to a reduction in minimum standards of achievement for the less able, and a stress on curriculum enrichment for the bright. Retardation, i.e., the repeating of grades, has been considerably reduced, the aim being for each child to remain with his age group. In all States, opportunity classes exist for backward children, and in one State opportunity classes are provided for the especially bright.

(iii) *Secondary Schools.* At the age of 12 or 13 (in Queensland, 14), children transfer to a secondary school course. In the cities and larger country centres, this is provided in a separate school, but in less densely populated areas secondary classes share the same buildings as primary classes. In rural areas, secondary pupils may share teachers or classrooms with primary pupils, and in one-teacher schools a few secondary students may carry out correspondence assignments under the supervision of the primary teacher-in-charge.

Secondary curricula have developed from the matriculation requirements of the universities. Formerly English grammar and literature, and mathematics, including algebra, geometry and trigonometry, were the core. Languages, chiefly Latin and French, or science, chiefly physics and chemistry, and history had an important place. Geography and drawing were often taken in the first two or three years.

As a result of changes in the academic course for matriculation, greater emphasis has been placed on oral and written expression in the English course and on language generally (English or foreign languages); in two universities, new matriculation regulations require a pass in either mathematics or a foreign language (not necessarily Latin, which in recent years has been less popular than previously). A general science course has been introduced in some States, and social studies, a synthesis of history, geography and civics, is a subject to matriculation level in two States. More emphasis has been placed on art, music and physical education.

In recent years, the provision of a secondary education for all has gained ground rapidly, although the entrance requirements of tertiary institutions are still provided for. Consequently, alongside the academic course other courses have grown up. In country areas, they may be offered in the same school, or the academic course may even be largely abandoned. In the city, it is usual to offer non-academic courses in separate schools, although there is a trend towards comprehensive high schools offering several types of courses and catering for all the pupils from the district. Schools providing academic courses are usually known as High Schools, while the other types are generally distinguished by such names as Junior Technical Schools and Home Science Schools.

Particular mention should be made of the recent development of the all-stage consolidated school, sometimes with an agricultural bias, found under various names in different States. Tasmania and South Australia adapted the idea of the English village area schools to Australian conditions and established "Area Schools", some of which have farms attached.

The courses followed in the non-academic schools are, in general, broader than in the academic schools. There is less concentration on establishing an academic discipline and method peculiar to each subject, but more attention to correlation between fields of knowledge, sometimes expressed by projects involving them all. Generally, less time is devoted to mathematics and the formal sciences, and more time to practical work and to art and musical appreciation. In English, oral language is emphasized rather more and grammar much less than in the academic schools.

(iv) *State Details.* Very brief particulars of the position in each of the States are given on pages 432-3 of Official Year Book No. 40.

4. Public Authority and the Non-Government Schools.—In all States, it is compulsory for all children between certain ages to receive education in a government school, unless the child is under "regular and efficient" instruction elsewhere. This may be at home, or in a non-government school. The provision for control over the regularity and efficiency of instruction in the non-government schools varies considerably from State to State. In New South Wales and Western Australia, provision is made for an initial inspection when a new school starts, and for inspections thereafter as the Minister requires, to ensure efficiency. In Victoria and Tasmania, registers are kept of teachers and schools, and both teachers and schools must satisfy the administering authority that they are efficient before registration is granted. Without such registration, neither a teacher nor a school can operate. Provision is made, too, for inspections at any time by the registering authority.

In Queensland, eight grammar schools, which exist by statutory authority and are subsidized by the State, are subject to annual inspection. These are the only non-government schools in Australia for which an annual inspection is prescribed by statute. Other non-government schools in Queensland may be inspected at their own request, but it is possible for these schools—and also those in South Australia—to exist without inspection.

Public authority over schools or institutions having scholars above the compulsory ages is generally less direct. It is effected directly by the registration procedures in Victoria and Tasmania, and in all States there is a measure of indirect control through provisions governing the award of State scholarships, bursaries or other forms of financial assistance to secondary scholars, which are available only in government or approved non-government schools. In New South Wales, also, the Intermediate and Leaving Certificates are awarded only to pupils of schools whose courses of study are approved by the Department of Education.

In all States, non-government schools are required, under the authority of either the Education Acts or Statistics Acts, to furnish certain statistical returns. The form of these returns may be prescribed in the Acts or may be subject to alteration with the Minister's consent.

5. The Organization of Roman Catholic Schools.—There is, in each State capital, an official who acts under the Archbishop as a Director of Catholic Education for the area. Each diocese within the area is, however, autonomous and manages its own educational affairs subject to the local episcopal authority. The State Director has, in addition to possible inspectorial functions within his own diocese, the duty of co-ordination of educational matters within his area, and of liaison with other educational authorities, particularly the State Education Department.

The system includes kindergartens, sub-primary, primary, academic secondary, home science, commercial, agricultural and technical schools, juniorates and seminaries, schools for the mentally and physically handicapped, orphanages and a variety of special schools of a charitable nature for under-privileged or socially handicapped children.

With the exception of a small number of permanent lay teachers and a number of visiting teachers, usually specialists in such matters as physical education, sport, and speech, teaching is done by members of religious orders.

6. The Organization of Other Non-Government Schools.—(i) *General.* Practically all non-government schools, except a limited number under private ownership, are governed by a controlling body known variously as a School Council or Board of Trustees or Governors.

Within each State, although the other non-government schools may be organized into loose forms of association for purposes such as sports, conferences, and uniform conditions, there is no system corresponding in size, detail or organization with the Roman Catholic schools.

The Headmasters' Conference of Australia and the Headmistresses' Association of Australia are composed of headmasters and headmistresses respectively of a number of the larger non-government schools, including some Roman Catholic schools. Neither body has executive powers. One of the chief considerations for the admission of new members is the degree of independence enjoyed by the governing body and principal of the school concerned.

(ii) *Church of England Schools.* The various types of Church of England schools include small schools associated with a local parish; schools under direct ownership of a diocese; schools established by Acts of the Church Synod, in which the majority of the members of the council are church representatives but which, otherwise, have almost complete independence; and schools conducted by religious orders of the church.

The proportion of members of a school council nominated by the church varies. In some schools, members may also be nominated by parents, by former students, and by the council itself.

In general, schools incorporating the words "Church of England" in their title follow a diocesan syllabus of religious education.

(iii) *Other Denominational Schools.* In general, control of Presbyterian schools is exercised through School Councils appointed by the General Assembly of the Presbyterian Church in the State concerned. Councils vary considerably in size and in the bodies represented on them. Similarly, appointments to councils of Methodist schools are made by the annual Conference of each State. In Queensland, five schools are operated under the joint auspices of the Presbyterian and Methodist churches.

A limited number of schools are conducted by other denominations, such as the Baptist, Congregational and Lutheran churches and by the Seventh-day Adventists. The Society of Friends conducts one school in Australia, the Friends' School, Hobart.

Jewish schools are conducted in several capital cities.

(iv) *Undenominational Schools.* There are a number of undenominational schools in Australia. Some of the larger, although not State-operated, have Government nominees on their boards. They include Sydney Grammar School, the Hale School, Perth, and the eight Queensland grammar schools. Other undenominational schools operate under the auspices of corporate bodies, usually in the form of a limited liability company, while others are privately owned. The majority of schools in this last category are small kindergartens, preparatory and primary schools.

7. *Examinations and Accrediting.*—(i) *Examinations.* The various public examinations which were formerly held at different stages of education were described in previous Year Books, in particular in No. 40 (1954). There are no public examinations in primary school, but each school normally holds internal examinations yearly or half-yearly. In most States, there is no public examination barrier at the end of primary school, and pupils proceed to high schools of various types. The trend is towards greater use of internal examinations and headmasters' recommendations. In Queensland, a Scholarship Examination is held at the end of primary school, and pupils passing this examination qualify for free secondary education; this makes secondary education free for the great majority of children in Queensland. In all other States, secondary education is quite free. The length of the secondary schooling now varies from four years in Queensland to six years in Victoria.

There are two important examinations in secondary school—one about half-way through the course, and one at the end. The first examination is usually called the Intermediate or Junior, and pupils sit for this after 2, 3 or 4 years of secondary study at the age of 15 or 16. Many pupils leave school at this stage and enter technical and agricultural colleges, or undertake commerce, insurance, banking certificate, or nursing and secretarial courses. The remaining pupils, after one or two years further study, sit for the Leaving or Matriculation examination and qualify for entry to universities, teachers' colleges, technical college diploma courses or the clerical division of the public service. There are, of course, many variations from State to State, and details of these are given below. Most of the examinations are public ones, set and marked by an external authority and conducted on a state-wide scale, but some examinations are done internally, or a compromise between these two forms may be arranged to meet special circumstances.

(ii) *State Details. New South Wales.* The Intermediate Certificate Examination is taken after three years, either internally or externally, at an average age of 15, and the Leaving Certificate Examination (Matriculation), is taken after five years, at an average age of 17. Following a comprehensive report to the Minister, there are plans to make the secondary school course a six-year one, with a School Certificate after four years and a Higher School Certificate after six years.

Victoria. The Proficiency Certificate is taken internally after three years at school, at an average age of 14½; the Intermediate is taken at the end of the fourth year, the School Leaving at the end of the fifth year, and the Matriculation at the end of the sixth year. Pupils at approved schools may be accredited for the Intermediate and Leaving—i.e., the Certificate is awarded by the Education Department on the recommendation of the school principal under certain conditions.

Queensland. The Junior Public Examination is taken at the end of second year; pupils are then aged about 16. The Senior Public Examination (Matriculation) is held at the end of fourth year.

South Australia. The Intermediate Examination is taken at the end of third year, at an average age of 15½; the Leaving Certificate (Matriculation) at the end of fourth year; and the Leaving Honours at the end of fifth year.

Western Australia. The Junior Certificate Examination is taken at the end of third year by pupils aged about 15½; the Leaving (Matriculation) is taken at the end of fifth year. Certain schools are approved for accrediting in a few subjects at the Junior Certificate Examination.

Tasmania. The Modern School Certificate (an internal examination) is taken at the end of third year, when pupils are aged about 15; the Schools Board Certificate is taken at the end of fourth year, and the Matriculation at the end of fifth year. Certain schools are approved for accrediting for the Schools Board Certificate.

§ 3. Numbers of Schools, Teachers and Enrolments.

1. *General.*—The government schools shown in the following tables include primary, secondary, junior technical, correspondence and subsidized schools, but exclude senior technical colleges, evening schools and continuation classes.

Particulars relating to senior technical colleges are given in § 6, page 597.

Enrolments may be measured in a number of ways:—

Gross Enrolment means the number of names entered on the school rolls during the course of a year. Some children are thus counted more than once if they transfer from school to school during the year.

Net Enrolment means the gross enrolment less transfers from school to school. This is sometimes referred to as "the number of children instructed" at any time during the year. Children transferring between government and non-government schools are still counted in both places. Net enrolment is less than gross enrolment, but greater than the number of children enrolled at one time.

Average Weekly Enrolment may mean either (1) the average of the highest enrolment in each week; or (2) the average of the average enrolments for all weeks in the year. These figures do not differ appreciably, but some States use one and some the other.

Average Weekly Enrolment, by either method, may include a few children counted twice. It may be less than net enrolment and less than the greatest number of children enrolled at one time.

Census Enrolment means the number of children enrolled on a chosen day, usually 1st August. The figures thus determined usually approximate to the average weekly enrolment. If the census is at the end of the year, the figure may be higher than average weekly enrolment for primary schools and lower for secondary schools.

Average Daily Attendance which means the average number of children present for each whole school-day. In some States, half-day absences are taken into account in computing "average daily attendance", thus lowering the figure which would be obtained if presence for half a day were counted as presence for a whole day.

2. Statistical Summary.—The numbers of schools, teachers and enrolments for 1959 are shown in the following table:—

SCHOOLS: NUMBER, TEACHERS, ENROLMENT, 1959.

Type of School.	N.S.W. (a)	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Total.
NUMBER OF SCHOOLS.								
Government(b) ..	2,706	2,130	1,542	642	512	288	13	7,833
Non-Government—								
Denominational—								
Church of England..	42	35	16	13	9	5	..	120
Hebrew ..	3	6	..	..	2	..	..	27
Lutheran ..	7	4	(c) 5	15	3	1	..	23
Methodist ..	13	14	3	2	2	2	..	36
Presbyterian ..	677	433	264	119	172	41	2	1,708
Roman Catholic ..	16	7	3	3	5	3	..	37
Seventh-day Adventist	..	4	..	1	1	1	..	8
Other ..	51	35	10	5	120	6	..	227
Undenominational ..								
Total Non-Govern-								
ment ..	810	545	303	162	314	59	2	2,195
Total All Schools..	3,516	2,675	1,845	804	826	347	15	10,028

TEACHERS (EXCLUDING TEACHERS IN TRAINING).

Government(b) ..	d 19,155	14,421	8,713	5,912	4,098	2,412	146	54,857
Non-Government—								
Denominational—								
Church of England..	808	734	276	236	159	106	..	2,319
Hebrew ..	9	78	..	79	3	..	..	90
Lutheran ..	18	11	27	81	..	24	..	135
Methodist ..	186	178	(e) 103	65	57	20	..	637
Presbyterian ..	314	356	50	76	57	20	..	873
Roman Catholic ..	5,196	2,659	1,737	746	736	267	18	11,359
Seventh-day Adventist	54	29	8	9	21	9	..	130
Other ..	..	92	..	28	2	42	..	164
Undenominational ..	486	310	134	90	208	38	..	1,266
Total Non-Govern-								
ment ..	7,071	4,447	2,335	1,345	1,251	506	18	16,973
Total All Schools..	26,226	18,868	11,048	7,257	5,349	2,918	164	71,830

AVERAGE WEEKLY ENROLMENT.

Government(b) ..	571,875	404,750	233,121	157,513	115,875	62,381	2,996	1,548,511
Non-Government—								
Denominational—		(e)	(e)	(e)	(f)		(e)	
Church of England..	12,103	13,773	4,349	4,143	2,980	1,720	..	39,068
Hebrew ..	162	1,392	..	..	33	..	..	1,587
Lutheran ..	209	290	427	1,297	..	..	..	2,223
Methodist ..	2,648	3,725	(e) 1,968	1,507	1,281	328	..	11,457
Presbyterian ..	5,012	7,239	713	1,286	1,097	272	..	15,619
Roman Catholic ..	160,292	121,812	57,655	23,184	26,444	9,788	695	399,870
Seventh-day Adventist	915	541	166	146	321	144	..	2,233
Other ..	..	1,832	..	426	68	800	..	3,126
Undenominational ..	5,341	5,589	2,854	1,212	3,785	462	..	19,243
Total Non-Govern-								
ment ..	186,682	156,193	68,132	33,201	36,009	13,514	695	494,426
Total All Schools..	758,557	560,943	301,253	190,714	151,884	75,895	3,691	2,042,937

(a) Includes Australian Capital Territory. (b) Excludes Senior Technical Colleges.
 (c) Presbyterian and Methodist Schools' Association. (d) At 30th June, 1959. (e) Net
 enrolment. (f) Includes Kindergartens.

3. **Growth of School Attendance.**—The average attendance at schools in Australia is shown in the following table for the year 1891 and at varying intervals to 1959:—

SCHOOLS: AVERAGE DAILY ATTENDANCE, 1891-1959.

Year.	Government Schools. (a)	Non-Government Schools.	Total.	Year.	Government Schools. (a)	Non-Government Schools.	Total.
1891	350,773	99,588	450,361	1951	899,514	293,429	1,192,943
1901	450,246	120,742	570,988	1955	1,153,628	377,908	1,531,536
1911	463,799	132,588	596,387	1956	1,219,081	(b) 401,900	b 1,620,981
1921	666,498	164,075	830,573	1957	1,272,153	(b) 422,000	b 1,694,153
1931	817,262	189,665	1,006,927	1958	1,352,281	(b) 446,620	b 1,798,901
1941	732,116	224,355	956,471	1959	1,413,386	(b) 462,700	b 1,876,086

(a) Excludes Senior Technical Colleges.

(b) Partly estimated.

4. **Ages of Pupils.**—The ages of pupils at government and non-government schools at the Census date 1959 (which for most States was in August) are shown in the following table.

SCHOOLS: AGES OF PUPILS, AUSTRALIA, 1959.
(Census Enrolment.)

Age last Birthday (years).	Government Schools.			Non-Government Schools.			Total All Schools.		
	Boys.	Girls.	Total.	Boys.	Girls.	Total.	Boys.	Girls.	Total.
Under 6	64,244	60,822	125,066	42,985	44,259	87,244	190,579	183,267	373,846
6 " " 7	83,350	78,186	161,536						
7 " " 8	81,803	76,589	158,392	22,148	22,738	44,886	103,951	99,327	203,278
8 " " 9	80,972	76,138	157,110	22,028	22,955	44,983	103,000	99,093	202,093
9 " " 10	80,405	75,314	155,719	21,904	22,793	44,697	102,309	98,107	200,416
10 " " 11	78,167	72,727	150,894	21,085	22,789	43,874	99,252	95,516	194,768
11 " " 12	78,415	72,476	150,891	21,834	23,247	45,081	100,249	95,723	195,972
12 " " 13	84,147	76,984	161,131	23,433	25,729	49,162	107,580	102,713	210,293
13 " " 14	68,759	61,425	130,184	20,614	22,350	42,964	89,373	83,775	173,148
14 " " 15	58,617	51,037	109,654	18,116	20,045	38,161	76,733	71,082	147,815
15 " " 16	35,070	26,597	61,667	13,764	13,891	27,655	48,834	40,488	89,322
16 " " 17	14,161	10,249	24,410	8,282	7,087	15,369	22,443	17,336	39,779
17 and over	7,818	4,046	11,864	6,135	3,383	9,518	13,953	7,429	21,382
Total	815,928	742,590	1,558,518	242,328	251,266	493,594	1,058,256	993,856	2,052,112

The ages of all pupils in each State at the same date are shown in the following table.

SCHOOLS: AGES OF PUPILS: STATES, 1959.
(Census Enrolment.)

Age last Birthday. (Years.)	New South Wales. (a)	Victoria.	Queens-land.	South Australia. (b)	Western Australia.	Tasmania.	Australia.
Under 5	4,004	2,076	337	14,899	26,849	13,276	373,846
5 and under	65,532	46,329	18,049				
6 " " 7	75,048	56,859	30,415	20,173	15,747	7,216	202,093
7 " " 8	74,611	54,963	30,719	19,732	15,693	7,560	203,278
8 " " 9	74,394	55,172	30,021	19,543	15,747	7,216	202,093
9 " " 10	73,772	54,340	30,128	19,704	15,188	7,284	200,416
10 " " 11	71,765	52,422	29,122	19,259	15,007	7,193	194,768
11 " " 12	72,639	53,166	29,226	18,987	14,833	7,121	195,972
12 " " 13	78,193	56,840	31,242	20,530	16,115	7,373	210,293
13 " " 14	65,839	47,056	25,517	16,437	12,223	6,076	173,148
14 " " 15	62,079	36,433	20,429	13,263	9,938	5,673	147,815
15 " " 16	31,976	24,955	13,384	8,520	6,449	4,038	89,322
16 " " 17	13,183	11,710	6,426	4,166	2,605	1,689	39,779
17 " " 18	5,986	4,617	3,252	1,322	1,255	592	21,382
18 and over		1,177	2,130	335	394	322	
Total	769,021	558,115	300,397	196,870	152,296	75,413	2,052,112

(a) Includes Australian Capital Territory.

(b) Includes Northern Territory.

§ 4. Other Aspects of Education in Schools.

1. **Health Services to Schools.**—Information relating to school medical and dental services is given in Chapter XVII.—Public Health.

2. **Guidance.**—Each Australian State now has a comprehensive system of educational guidance administered by trained and experienced educational psychologists and backed by a system of school record cards. In general, the functions of these services are:—selection and differentiation for secondary education, diagnosis and guidance of atypical children, preliminary vocational guidance and, in some States, research. The weight given to each of these functions varies considerably from State to State, but the aim is to provide thorough educational guidance for all children.

Throughout Australia, branches of the Commonwealth Employment Service co-operate with State Education Departments by giving post-school vocational guidance, using the data obtained and made available by the Education Departments during the school career of the children. In New South Wales, a similar service is also provided by the Youth Welfare Section of the Department of Labour and Industry.

3. **Research.**—(i) *State Education Departments.* All State Education Departments have set up research branches which function as integral parts of head offices. In several States, the officer who directs research is also responsible for the guidance service offered by his department. The research undertaken is directed towards departmental activities and the findings are examined carefully in the determination of policy and procedures; in addition, many problems of immediate importance are handled. In the majority of States, too, the Research Branch supervises the collation of statistics and also plays an important part in curriculum revision and modification of examinations.

(ii) *Australian Council for Educational Research.* The Australian Council for Educational Research, a non-governmental body, is also engaged on educational research in a wide variety of fields, ranging from tertiary to pre-school education. It conducts surveys and inquiries, makes grants to approved educational investigators, serves as a centre for disseminating educational information, provides training for research workers, and standardizes and distributes educational and psychological tests for use in Australia. Although this council is an autonomous body, the Commonwealth and State Governments contribute some financial support.

4. **Atypical Children.**—Pupils who, for one reason or another, cannot progress to their best advantage in an ordinary school are catered for by special schools or classes. Among groups given special attention are the mentally backward, the gifted, the physically handicapped, the blind, deaf and dumb, the epileptic, the cerebral palsied, the partially sighted, the hard-of-hearing and the socially maladjusted. The provision of special schools and classes has involved the appointment of departmental specialists, special training courses and close liaison with school health services. In some States, special clinics attached to hospitals, or functioning as an independent child-welfare service, handle cases of personality maladjustment and work in co-operation with the psychological services of the Education Departments.

5. **Education of Native Children in Australia.**—The Commonwealth Government is responsible for the education of full-blood native children in the Northern Territory. Each State has responsibility for the welfare and education of native children within its boundaries.

Native children are admitted to government schools in all States except in areas where separate facilities are provided. In those States where natives are more numerous, special schools are located at or near aboriginal reserves, settlements and stations. The schools are for the most part staffed by teachers from the Education Departments, and the curriculum is similar to that in ordinary government schools with a bias towards handicrafts. Numbers of native children also attend the mission schools conducted in several States by the various religious denominations. The standard of education in these schools is generally similar to that in the government schools.

6. **Provision for Rural Areas.**—(i) *General.* The population of Australia is so scattered that there is a problem in providing primary, and more especially secondary, education for all children. One method of meeting this problem has been the establishment of a wide network of one-teacher primary schools, staffed in the main with trained teachers. The practice of sending itinerant teachers to assist correspondence students in outlying areas has been introduced in the far north of Western Australia. The School of the Air, which is dealt with more fully below, is another method used for dealing with the problem.

(ii) *Subsidized Schools.* Where a group of children is too small to warrant the establishment of a one-teacher school, a "subsidized school" may be opened. The Education Department pays part of the cost, and in some States appoints a teacher. Some States also administer "provisional schools", which are completely financed by the Government but which are not large enough, or sufficiently assured of adequate continued attendance of pupils, to warrant classification as permanent schools.

(iii) *Consolidated Schools.* In some States, in districts where a number of small centres are scattered around a larger centre or country town, recent policy has been to close the one-teacher schools and transport pupils each day by bus to a "consolidated" school in the larger centre. Consolidated schools provide primary instruction and from two to four years of post-primary instruction. The post-primary curriculum adopted usually has a bias towards practical activities and training in subjects bearing on the primary industries of the locality.

(iv) *Special Assistance.* Another way of bringing children to the school has been the provision of financial assistance for children who have to live away from home in order to attend school. Most of these board in private homes, but in the several States there are a few government hostels and over 60 private hostels (excluding private boarding schools), many of which are government-subsidized. Together, these cater for almost 2,000 children of secondary school age and a small number of primary school children also. In all States, some provision is made for financial assistance towards the living and travelling expenses of children who are obliged to live away from home in order to attend school.

(v) *Correspondence.* For children who are still unable to attend school, systems of correspondence tuition have been established in every State. The Education Departments provide tuition through primary and secondary school levels and up to matriculation standard if required. In addition, the Technical Correspondence Schools conducted by the senior technical college of each State arrange for correspondence tuition at secondary level up to matriculation standard for students over the school leaving age. Further reference to the work of the Technical Correspondence Schools is made in § 6 of this chapter, which deals with technical education (*see p. 598*).

7. School Broadcasting and Television.—Over the years, an extensive school broadcasting system has been developed in Australia by the co-operative efforts of the Australian Broadcasting Commission and education authorities. The Youth Education Department of the A.B.C. is responsible for the broadcasting of the programmes, but it draws freely on the advice and services of teachers and maintains permanent liaison officers with the Education Departments. It was estimated that in 1960 over 90 per cent. of Australian schools were equipped to receive radio lessons.

School broadcasts are presented as part of the regular A.B.C. programmes without separate stations or wave lengths. Special efforts are made, however, to relate the broadcast to school work by the extensive distribution of booklets, giving details of programmes in advance, and subject notes accompanied by picture sheets, work books, and teachers' notes.

Broadcasting has proved to be a most effective way of reaching the outback children of Australia, and radio lessons have been designed to supplement correspondence lessons. The success of the first School of the Air, which has been in operation at Alice Springs in the Northern Territory since 1950 and serves correspondence pupils of the South Australian Education Department, has led to the opening of similar schools based at Ceduna and Port Augusta in South Australia, at Broken Hill in the far west of New South Wales, at Meekatharra and Derby in Western Australia, and at Cloncurry in Queensland. In all, these schools serve a total of a million square miles. By means of special two-way radio equipment, children hundreds of miles apart can participate in the same lesson and teachers and pupils can talk directly with each other.

From the beginning of 1959, the A.B.C., in co-operation with education authorities provided several types of school television programmes weekly as an experiment. These were continued in 1960.

The "Kindergarten of the Air" and the television programme, "Kindergarten Playtime" are described in § 5 of this chapter, which deals with pre-school education (*see p. 597*).

8. Teacher Training and Recruitment.—(i) *General.* The training of government school teachers is carried out by the State Education Departments, but in most States persons who wish to train for teaching in private schools may attend government training

colleges on payment of a fee. Many non-government school teachers have been drawn from the government teaching services and others have been recruited at the university graduate level. Private training institutions also provide some teachers.

An account of the early growth of teacher training systems is to be found in Official Year Book No. 22, and subsequent developments were reviewed extensively in Official Year Book No. 40. The pupil-teacher system has been abandoned as the chief method of training teachers, and teacher students are now recruited at matriculation level and given a professional course of training at colleges controlled by Education Departments or by university departments of education. The raising of standards and lengthening of training have led to a close association between the Education Departments and universities. The trend has been towards placing teacher training on the same basis as other professional training.

There is at present a shortage of teachers in Australia. Measures taken to overcome this shortage include substantial increases in teachers' salaries and liberalization of promotion systems, publicity drives to attract recruits, and increases in living allowances to departmental teachers' college students. In some States, special arrangements are in force for intensive shorter training courses, in order to meet the immediate need. In others, recruitment of teachers overseas is undertaken to reduce the shortage.

(ii) *Training Colleges.* Every State maintains at least one teachers' training college. Most students are trained at colleges in the capital cities, although there has been a movement towards the establishment of colleges in the country. At the end of 1960, there were in Australia 26 teachers' colleges conducted by Education Departments and professional training in education was being provided by seven universities.

(iii) *Training of Primary Teachers.* In most States, teachers for government primary schools are trained in co-educational teachers' training colleges controlled and administered by the State Education Departments. Departmental trainees are given a monetary allowance while in training, and are required to enter into a bond to serve for a specified period on completion of training or to repay all or portion of the cost of training.

The entrance standard is generally at the Leaving Certificate level at about the age of seventeen. In some States, intending teachers can obtain a scholarship at the Intermediate Certificate level to enable them to complete teachers' college entrance requirements. In return, they are required to enter into a bond of service additional to that normally required of departmental teachers' college trainees.

In general, the duration of courses is two years for primary teachers, including infants' teachers. The basic subjects taken in the various courses are principles, history and general methods of teaching, special methods of teaching primary school subjects and educational psychology. In addition, students undertake courses in physical education, art, music, school hygiene and handicrafts as well as lectures designed to widen their own cultural background.

In South Australia, primary teacher trainees attend certain university courses, including education, as part of their training. In Tasmania, while the majority of departmental teacher trainees receive their training at the university, there is also a government teachers' college providing courses in infant, primary and home arts teaching.

In some States, separate courses are provided for teachers in infants' schools and in small one-teacher schools. In Victoria, an extension course of one year following the primary course is designed to train teachers of home-crafts for primary schools.

(iv) *Training of Secondary Teachers.* Prospective secondary teachers are required to undertake a university degree course followed by a one-year post-graduate course leading to a degree or diploma in education, or a two or three year course at a teachers' college. Both these periods of training include lectures on subjects associated with educational theory and practice, study of methods and techniques appropriate to secondary school subjects, periods of practice teaching, and the observation of classroom techniques in the teaching of special subjects.

(v) *Training of Specialist Teachers.* Teachers of specialist subjects such as music, art, manual arts, domestic science and commercial subjects receive from two to five years' training varying according to the institution concerned and the type of secondary school in which the teacher is to teach. In several States, the shorter courses are provided wholly by the teachers' colleges. Where the specialist course is given at an institution other than the teachers' college—for example, at a university, technical college or conservatorium of

music—as is usual for teachers of specialist subjects in high schools, trainees are required to attend teachers' college or university lectures in education and in some cases the specialist course is followed by a year of professional training.

In four States, teachers of music receive their specialist training at conservatoria of music: in New South Wales and Queensland, the conservatorium is a State institution under the Minister for Education; in Victoria and South Australia, it is attached to the university.

Courses designed to train physical education teachers are offered in five States, in one at a teachers' college and in the others by the universities.

Training for teachers of agricultural subjects in secondary schools is available in five States and consists of either an agricultural college diploma or a university degree course together with professional training. In Victoria, the two-year agricultural college diploma course follows the normal two-year primary teachers' course. In New South Wales, in addition to the three-year university agricultural course followed by one year's professional training, there is a two-year teachers' college agricultural course.

(vi) *Training of Technical Teachers.* Teachers of general subjects in technical schools and colleges usually receive their training either as primary or as secondary teachers and, after some experience in either or both fields, are transferred to a technical institution.

Teachers of specialist subjects in technical schools are usually recruited from the ranks of qualified tradesmen engaged in either industry or commerce. Upon appointment, teachers of technical subjects usually receive instruction in classroom teaching techniques and procedures. A separate Technical Teachers' College has been established in Victoria.

(vii) *In-service Training.* As almost all teachers now enter the profession by way of teachers' colleges, where they receive basic professional training, in-service training in Australia is directed chiefly towards keeping teachers abreast of developments and adding to their basic training.

Such training usually takes the form of short courses held sometimes during vacations, sometimes during school-time or in the evenings. Courses consist of discussions and lectures given by senior staff members of Education Departments and university and teachers' college lecturers, on such subjects as classroom techniques and supervision, librarianship, visual aids, music, arts and crafts and physical education. In some States, there are also in-service courses for special groups of teachers, such as headmasters or teachers of one-teacher schools. In addition, district inspectors are responsible for organizing short conferences of teachers where professional topics are discussed.

Education Departments encourage teachers to pursue university courses, and in some States pay the cost of courses undertaken by selected teachers.

The official publications of the Education Departments contain articles dealing with educational theory and practice. In most States, the magazines of the teachers' organizations, which reach the majority of government teachers, also contain articles of this type.

(viii) *State Details.* The details of teacher training in the States are given on pages 442–3 of Official Year Book No. 40.

(ix) *Sex and Status of Teachers.* Although about half of the teachers in government schools in Australia are men, the ratio varies from State to State. In the infants' schools and generally in girls' departments, women teachers only are employed. Men, however, predominate in the senior positions, both because of their greater numbers amongst those with long service and because, except in infants' schools and girls' schools, the higher promotion positions are generally reserved for men.

9. *School Buildings and Grounds.*—In 1930, school building programmes were seriously cut because of the financial difficulties of the depression. The 1939–45 War intervened before school building could be resumed on a large scale. After the War, the building of schools was given a high priority, but the rapid post-war increases in school population have imposed a severe strain on available school accommodation, and such emergency measures as the use of halls, cloakrooms and weather-sheds for class instruction have been adopted in some areas.

The post-war buildings fall into two groups, portable and permanent. In primary schools in particular, some Education Departments favour the use of both kinds of classroom in conjunction, thus enabling them to cope with the changing age-composition of particular areas. Prefabricated buildings and classrooms have been imported or locally produced

in increasing quantities and include timber-frame units, aluminium and steel units, and single and multiple pre-cast concrete units. Such prefabricated buildings are used, not only in extending the facilities of existing schools and to provide multi-purpose units such as assembly hall gymnasiums, but also for erecting entire schools. Expenditure on school building has increased greatly in all States over recent years.

10. School Equipment.—(i) *Text Books and Materials.* The State Education Departments supply government schools with essential equipment free of charge, including scientific apparatus and equipment, maps, blackboards, chalk and cleaning materials, and non-consumable equipment for commercial, home science and manual training. Garden tools and physical training equipment are supplied free in most States.

Primers and writing equipment for individual pupils are usually supplied free in primary schools, and Departments, with one exception, produce monthly school magazines which are supplied free or at a small cost. Textbooks, however, are supplied to primary pupils free of charge in one State only. In other primary schools and in all secondary schools, textbooks must be purchased by students, although in several States schools own stocks of textbooks which are hired to students, and in one State secondary textbooks are sold at reduced rates.

Other equipment is supplied free by the Departments on a limited basis only. Equipment such as radios, film and filmstrip projectors, pianos, duplicators and library books are ordinarily purchased for individual schools by the parent and citizen organizations associated with them, with the assistance of subsidies from the Departments.

(ii) *Furniture.* There has been considerable development in this field. Originally most schools were equipped with long desks and benches, seating six to eight pupils, but these were later replaced by the standard dual desk with tip-up seat, and in infant classes by individual chairs and small tables. After the war, considerable research was undertaken on posture and the physical measurement of children. The dual desk is now being replaced in some States by the individual table and chair, provided in a range of sizes suitable to each class. In some States, tubular steel furniture is used. The new type of furniture is more suitable for flexible arrangements of the class in line with modern educational practice.

(iii) *Visual Aids.* In the past 20 years, there has been a remarkable growth in the use of visual aids in education. After some resourceful pioneering work had been done by individuals, the Departments of Education, between 1936 and 1939, appointed special committees and teacher demonstrators to guide the development of the new educational medium. Production units to produce film strips suitable for use in schools were set up in five States, and an Australian-produced film-strip projector was manufactured. After the war, the emphasis moved from the strip projector to the 16 mm. sound machine, and the Australian National Film Board, set up by the Commonwealth Government to promote the use of educational films, became the main producer of these films. Film companies are also designing films primarily for class-room use and several manufacturers have produced 16 mm. sound projectors. Education Departments have their own film libraries to distribute films to schools and, in addition, borrow from the Commonwealth National Library, which is the main distributing centre for non-technical films in Australia.

11. Parent and Citizen Organizations.—In Australia, where all government schools are administered by central departments, there is little opportunity for local administration of education. Public interest is expressed through parents' committees or organizations of parents and other citizens interested in supporting their local school. The Education Acts of all States provide for the formation of groups of this type, whose aims are to promote the interest of the school by bringing parents, pupils and teaching staff together, to help provide teaching aids and recreation materials not supplied by the departments, to assist in the regular attendance of children at school and to help find accommodation for teachers.

In several States, the general maintenance of school buildings, equipment and grounds is a statutory responsibility of the parent groups, costs being covered by government grants. Lunch canteen services at local schools are maintained by groups in some States.

A notable achievement of the parent groups has been the establishment of school children's insurance schemes, operated through State government insurance offices or private insurance companies. These schemes cover accidents to children which occur between the time of leaving home for school and returning home by the usual direct route.

State-wide councils of federations of parents' groups are associated in a federal body, the Australian Council of School Organizations.

12. School Banking.—Particulars of School Savings Banks are included in Chapter XX.—Private Finance.

§ 5. Pre-School Education.

1. **Types of Pre-School Centres.**—Free kindergartens were originally established in congested industrial areas and financed mainly by voluntary effort, but over the years the Commonwealth Government, the State Governments and some municipal councils have provided an increasing amount of financial assistance, and in addition themselves maintain pre-school centres in certain areas.

In 1938, the six Kindergarten Unions, the voluntary organizations which pioneered pre-school education in Australia, met to form a federal organization. Its title "Australian Association for Pre-school Child Development" was changed in 1954 to "Australian Pre-school Association". Its membership is now open to all organizations whose main objective is the care of the pre-school child, and includes bodies in the Australian Capital Territory, the Northern Territory, and the Territory of Papua and New Guinea.

The aim of the association is to promote the continuous advancement of pre-school movements throughout Australia. It sets out standards which act as a guide throughout Australia to those sponsoring pre-school centres, and is responsible for the administration of the six Lady Gowrie Child Centres. These centres are demonstration nursery schools which the Commonwealth Government established in each of the capital cities in 1940 and which are maintained by Commonwealth grants.

To-day, pre-school centres are found not only in inner city areas but also in suburban and country districts. Programmes are adapted to suit the areas in which the centres are situated. Types of pre-school centres include nursery kindergartens, crèches with full-day care for children of working mothers, play groups and play centres, occasional care centres and residential holiday homes.

There are only a limited number of State-subsidized pre-school centres and kindergartens conducted by public authorities and voluntary bodies such as the Kindergarten Unions. However, many children of pre-school age attend private non-subsidized nursery schools or kindergartens. No comprehensive statistics are available concerning the operations of pre-school centres and kindergartens.

2. **The Training of Teachers.**—Although the principle is that all types of pre-school work should be under the guidance of trained pre-school teachers, this cannot always be put into practice, owing to the shortage of teachers.

The Kindergarten Unions in all States except Tasmania have established teacher training colleges providing three-year courses. The minimum entrance age is seventeen, and the Leaving Certificate is usually required before admission. In addition, in New South Wales, the Sydney Day Nursery and Nursery Schools' Association maintains a training college, and a two-year course for nursery teachers is available at the Sydney Teachers' College.

In Tasmania, prospective teachers complete a two-year course of training at one of the Education Department's pre-school centres. Those wishing to gain a Kindergarten Training College diploma must attend a college on the mainland.

Many students-in-training receive government scholarships, and others are sponsored by government departments or voluntary organizations.

3. **Kindergarten of the Air and Kindergarten Playtime.**—The "Kindergarten of the Air" came into being in 1942 in Western Australia, where, under the stress of the war, kindergartens could not remain open. It was conducted by the Australian Broadcasting Commission and proved so successful that within a few years it was being broadcast throughout Australia and has inspired similar projects overseas. It consists of a programme of 25 minutes every weekday based on the interests of children from 3 to 5 years of age.

"Kindergarten Playtime" was first telecast in December, 1956, only a month after the Australian Broadcasting Commission had commenced televising programmes. It consists of a programme of 15 minutes every weekday, based on the interests of children from 3 to 5 years, and is now shown in all State capital cities.

§ 6. Technical Education.

1. **General.**—In this section, technical education refers to that branch of education which is concerned with the preparation for entry to skilled occupations, including trades and professions. In the main, this education is vocational and is chiefly part-time, being carried out by the student while he is engaged in his occupation. The work of technical

high schools, junior technical schools and other schools of this nature, which provide courses with a bias towards technical handwork, has been excluded, as these schools provide a form of education which is more properly regarded as secondary education.

The chief institutions for higher education other than the universities are the technical colleges, which are administered in five States by a division of the Education Department. In New South Wales, a separate Department of Technical Education has been established, and in Victoria a number of the foremost technical colleges is controlled by independent councils which, although responsible to the Minister of Education, have a large measure of autonomy.

The technical colleges offer training not only in all the major industrial skills, but also in a variety of commercial, artistic and domestic occupations. Their courses may be divided into three main types, as follows:—

- (i) Diploma courses giving advanced training in the technical professions and other fields such as accountancy and art.
- (ii) Vocational courses, usually leading to the award of a certificate, for skilled technical and semi-professional workers. Many of these courses are in fields not covered by an apprenticeship award.
- (iii) Craftsman or artisan training in the apprenticeship trades.

A brief description of the expansion in technical training since the 1939–45 War appears in Official Year Book No. 43, page 449. The following table gives some indication of the growth of technical education in the years 1955 to 1959:—

TECHNICAL EDUCATION: AUSTRALIA.

Year.				No. of Colleges.	No. of Students.	No. of Teachers.(a)	Total Expenditure.
							£
1955	..	..	..	151	177,081	7,632	10,058,917
1956	..	..	..	164	(b)	8,364	11,395,445
1957	..	..	..	169	204,268	8,967	12,243,824
1958	..	..	..	171	205,225	9,765	13,813,071
1959	..	..	..	181	(b)	10,601	(b)

(a) Includes both full-time and part-time teachers.

(b) Not available.

Training in certain technical aspects of agriculture such as farm mechanics, wool classing, and in related fields such as food technology is also provided by the technical colleges, while the seven State agricultural colleges (*see also* Chapter XXII), located in all States except Tasmania, provide comprehensive agricultural courses of two to three years' duration which lead to diplomas in agriculture. At some colleges, other diploma courses are offered in addition, including horticulture, dairying and dairy manufactures, food technology and oenology. The Queensland Agricultural High School and College is administered by the Department of Education; in other States, the Departments of Agriculture are responsible for administration of the colleges.

2. Correspondence Training.—Technical correspondence courses were first offered in Australia about 1910. During the period 1940 to 1944, technical correspondence schools were founded in each State in conjunction with the Commonwealth and these have become an important part of the system of technical education in the Australian States.

These schools not only offer a wide variety of correspondence courses, including trade and apprenticeship, rural, commercial and art courses, but, in addition, provide secondary courses up to matriculation or diploma entrance standard. Students who because of distance or working hours cannot attend technical college classes may enrol for these courses. In New South Wales, "mobile instructional units" consisting of rail cars equipped as self-contained workshops are used to provide practical experience for correspondence students, as well as for the instruction of apprentices and tradesmen at smaller country centres.

In 1955, the Royal Melbourne Technical College established a shortwave broadcasting station to provide further tuition for its correspondence students.

An interesting recent development in technical correspondence education, in which the Australian technical colleges are co-operating with the Commonwealth Government,

is the correspondence scholarship scheme operating under the Colombo Plan. Through this scheme, South and South-east Asian students may take correspondence courses conducted by the technical colleges and by the University of Queensland, which has a highly organized system of external tuition. Courses include commercial, rural and teacher-training, engineering and other technical courses. Where practical training is required as part of the course, it is taken by the student in his own country.

3. **Teacher Training.**—Prior to the 1939–45 War, technical colleges were staffed chiefly by men drawn from two sources. They were either trained teachers in the employment of the Education Department or technicians drawn from industry. Although some of the latter were highly qualified, the great majority had not been trained as teachers. In order to remedy this, technical schemes have been developed to train college teachers without breaking the important link provided by recruiting specialist tradesmen to teach in the colleges. In Victoria, the Technical Teacher's College provides training for students with the appropriate diploma or trade qualifications and suitable industrial experience. In New South Wales, technical college lecturers and tradesmen-instructors receive an in-service course of teacher training in both general educational theory and teaching method, and correspondence courses and visiting lecturers care for the newly appointed teacher-instructor in country colleges. Modifications of this scheme are in operation in other States. Many technical teachers, principally of academic, commercial and domestic science subjects, hold trained teachers' certificates from teachers' colleges.

4. **Colleges, Teachers and Students.**—The number of colleges, teachers and enrolments of individual students during the years 1955 to 1959 is given in the following table:—

TECHNICAL EDUCATION: COLLEGES, TEACHERS AND ENROLMENTS.

State.	Colleges.	Teachers.			Individual Students Enrolled.		
		Full-time.	Part-time.	Total.	Males.	Females.	Persons.
New South Wales(a)—							
1955	42	1,162	1,102	2,264	43,595	21,890	65,485
1956	45	1,197	1,265	2,462	(b)	(b)	(b)
1957	45	1,240	1,291	2,531	51,244	27,386	78,630
1958	48	1,259	1,337	2,596	54,104	28,361	82,465
1959	48	1,299	1,691	2,990	(b)	(b)	(b)
Victoria—							
1955	45	1,808	1,346	3,154	37,152	15,374	52,526
1956	47	2,026	1,484	3,510	39,796	14,784	54,580
1957	50	2,209	1,558	3,767	42,224	16,082	58,306
1958	54	2,382	1,488	3,870	45,653	17,215	62,868
1959	63	2,644	1,678	4,322	48,089	16,845	64,934
Queensland(a)—							
1955	12	161	423	584	12,067	4,555	16,622
1956	13	165	402	567	12,478	4,461	16,939
1957	13	167	410	577	12,728	4,469	17,197
1958	13	166	568	734	13,422	4,792	18,214
1959	13	176	517	693	13,500	4,970	18,470
South Australia(a)—							
1955	27	205	530	735	12,675	6,947	19,622
1956	28	267	583	850	13,478	7,841	21,319
1957	30	274	663	937	15,123	8,300	23,423
1958	25	280	770	1,050	16,991	8,570	25,561
1959	25	294	779	1,073	18,130	8,570	26,700
Western Australia—							
1955	18	200	337	537	10,946	6,341	17,287
1956	24	237	339	576	12,100	6,703	18,803
1957	24	257	430	687	13,519	7,512	21,031
1958	23 (c)	278 (c)	735 (c)	1,013 (c)	15,977	8,436	24,413
1959	24 (c)	282 (c)	739 (c)	1,021 (c)	15,604	8,888	24,492
Tasmania—							
1955	7	73	285	358	3,394	2,145	5,539
1956	7	79	320	399	3,583	2,153	5,736
1957	7	85	383	468	4,423	2,215	6,638
1958	8	98	404	502	(d)4,625	(d)2,354	6,979
1959	8	104	398	502	4,837	2,463	7,300
Total—							
1955	151	3,609	4,023	7,632	119,829	57,252	177,081
1956	164	3,971	4,393	8,364	(b)	(b)	(b)
1957	169	4,232	4,735	8,967	139,261	65,964	205,225
1958	171	4,463	5,302	9,765	150,772	69,728	220,500
1959	181	4,799	5,802	10,601	(b)	(b)	(b)

(a) Excludes correspondence students.
(d) Estimated.

(b) Not available.

(c) Number of teaching positions.

§ 7. Expenditure on Schools and Technical Colleges.

1. **Government Schools Expenditure.**—(i) *Maintenance—All Schools (except Senior Technical Colleges).* The net expenditure on maintenance in all grades of schools, except senior technical colleges and, in Victoria, junior technical schools, and the cost per head of average attendance for each of the years 1955 to 1959 are shown in the following table. The figures do not include expenditure on buildings, which is shown in a subsequent table. In all expenditure tables, the figures for Victoria, Queensland, Western Australia and the Northern Territory relate to the financial year ended six months earlier than the calendar year.

GOVERNMENT SCHOOLS(a): NET EXPENDITURE ON MAINTENANCE.

Year.	N.S.W. (b)	Vic. (c)(d)	Q'land. (d)	S. Aust.	W. Aust. (d)	Tas.	N.T. (d)	A.C.T.	Aust.
TOTAL (INCLUDING SECONDARY SCHOOLS). (£'000.)									
1955..	24,901	14,454	6,979	5,480	5,143	2,667	125	309	60,058
1956..	27,054	17,405	8,194	5,986	5,755	de 2,896	149	345	67,784
1957..	28,859	19,439	9,098	6,581	6,307	(d) 3,386	155	417	74,242
1958..	31,837	21,560	9,969	7,389	6,963	(d) 3,457	197	439	81,811
1959..	35,324	23,938	11,373	8,824	7,259	df 3,858	217	547	(f)91,340

**PER HEAD OF AVERAGE ATTENDANCE.
(£ s. d.)**

1955..	57	4	9	49	19	2	40	15	8	47	7	8	58	12	11	54	7	5	79	4	1	74	14	3	52	1	3
1956..	59	13	10	56	14	6	44	18	3	48	6	9	60	17	8	55	18	10	81	3	11	74	0	2	55	12	1
1957..	60	19	4	60	12	0	48	0	1	50	15	6	63	13	9	63	19	4	74	1	1	77	14	10	58	7	2
1958..	63	6	8	61	13	9	49	18	9	53	0	0	66	16	11	61	12	2	78	18	9	73	13	2	60	2	5
1959..	68	13	6	64	7	3	53	15	0	60	0	6	66	19	11	67	2	6	81	4	4	79	13	2	64	6	3

(a) Excludes Senior Technical Colleges. (b) Gross figures, receipts not being available.
(c) Excludes Junior Technical Schools. (d) Twelve months ended 30th June of year shown.
(e) Estimated. (f) Subject to revision.

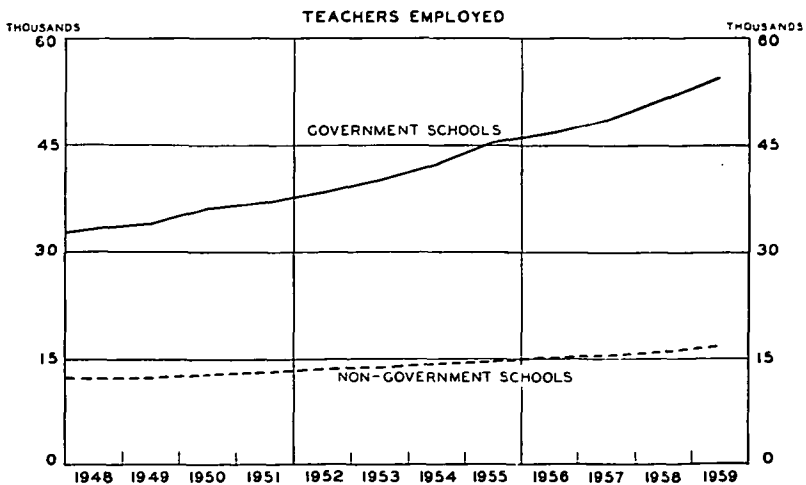
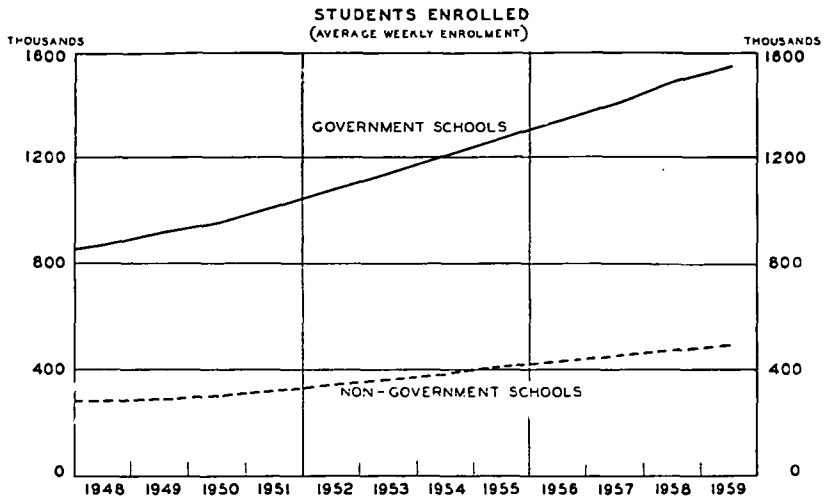
(ii) *Maintenance—Secondary Schools.* The figures shown in the preceding table refer to expenditure on the maintenance of all government primary and secondary schools, excluding senior technical colleges. It has been the practice of the State Education Departments to give separate information in regard to the cost of secondary education. The fact, however, that both elementary and higher education are in some instances given in the same school and by the same teacher makes difficult any satisfactory allocation of expenditure between primary and secondary education. Furthermore, the term "secondary" has not the same meaning in all States. Similar difficulties arise in connexion with the apportionment amongst the various branches of expenditure on administration, inspection and the training of teachers. The figures quoted hereunder in respect of cost have been extracted mainly from the reports of the State Education Departments, and are subject to the foregoing qualifications.

GOVERNMENT SECONDARY SCHOOLS(a): EXPENDITURE ON MAINTENANCE.

State.	1957.		1958.		1959.	
	Cost.	Cost per Head of Population.	Cost.	Cost per Head of Population.	Cost.	Cost per Head of Population.
	£	£ s. d.	£	£ s. d.	£	£ s. d.
New South Wales(b)	8,023,854	2 3 11	9,116,529	2 8 5	10,782,120	2 17 4
Victoria(c)	5,557,264	2 1 7	5,868,973	2 2 10	7,264,656	2 11 8
Queensland(c)	1,154,012	0 16 7	1,350,465	0 19 1	1,667,239	1 3 2
South Australia	1,685,933	1 18 7	2,018,421	2 5 0	2,728,611	2 19 3
Western Australia(c)	1,657,735	2 7 11	1,906,237	2 14 0	2,047,244	2 17 0
Tasmania(c)(d)	643,388	1 19 6	642,157	1 18 6	(e) 774,529	2 3 8
Australia	18,722,186	1 17 8	20,902,782	2 2 2	25,264,399	2 9 11

(a) Excludes Senior Technical Colleges. (b) Includes Australian Capital Territory. (c) Twelve months ended 30th June of year shown.
(d) Includes High and Junior Technical Schools.
(e) Subject to revision.

STUDENTS ENROLLED (AVERAGE WEEKLY ENROLMENT)
AND TEACHERS EMPLOYED IN
GOVERNMENT AND NON-GOVERNMENT SCHOOLS
AUSTRALIA, 1948 TO 1959



The figures in all cases exclude the cost of buildings. In Queensland, the figure quoted excludes the cost of the Agricultural High School and College, which amounted to £261,254 in 1956-57, to £263,293 in 1957-58 and to £283,848 in 1958-59.

(iii) *Buildings.* Expenditure on government school buildings, excluding senior technical colleges, for the years 1955 to 1959 was as follows:—

GOVERNMENT SCHOOLS(a): EXPENDITURE ON BUILDINGS.

(Including Loan Fund Expenditure.)

(£'000.)

Year.	N.S.W.	Vic.(b)	Q'land. (b)	S. Aust.	W. Aust. (b)	Tas.	N.T.(b)	Total.
1955 ..	7,366	4,660	1,287	1,366	1,458	1,340	16	17,493
1956 ..	7,409	5,917	1,589	1,518	1,591	b c 1,200	25	19,249
1957 ..	7,707	6,266	1,608	1,992	1,827	(b) 1,078	106	20,584
1958 ..	10,918	6,875	1,933	2,865	1,923	(b) 1,153	84	25,751
1959 ..	14,074	6,861	2,341	3,548	2,006	b d 1,282	66	d 30,178

(a) Excludes Senior Technical Colleges.
(d) Subject to revision.

(b) Year ended 30th June.

(c) Estimated.

The totals for the various States in 1959 include the following amounts expended from funds other than the consolidated revenue fund:—New South Wales, £11,613,933; Victoria, £6,577,708; Queensland, £1,930,657; South Australia, £3,142,090; Western Australia, £1,699,962; and Tasmania, £1,114,050.

(iv) *Total Net Cost.* The total net cost of education in government schools, including buildings, during the years 1955 to 1959 was as follows:—

GOVERNMENT SCHOOLS(a): TOTAL NET COST.

(£'000.)

Year.	N.S.W. (b)(c)	Vic. (d)(e)	Q'land. (d)	S. Aust. (c)	W. Aust. (d)	Tas. (d)	N.T. (d)	A.C.T. (c)(f)	Aus- tralia.
1955 ..	32,268	19,114	8,265	6,847	6,601	(c) 4,007	141	309	77,552
1956 ..	34,464	23,322	9,784	7,504	7,343	4,046	174	345	86,982
1957 ..	36,566	25,705	10,706	8,573	8,134	4,464	261	417	94,826
1958 ..	42,755	28,130	11,902	10,254	8,886	4,610	281	439	107,257
1959 ..	49,398	30,799	13,714	12,372	9,265	(g) 5,140	283	547	121,518

(a) Excludes Senior Technical Colleges. (b) Gross expenditure, receipts not being available.
(c) Figures relate to 12 months ended 31st December of year shown. (d) Figures relate to 12 months ended 30th June of year shown. (e) Excludes Junior Technical Schools. (f) Excludes expenditure on buildings. (g) Subject to revision.

The figures in the preceding tables refer to all grades of government schools with the exception of senior technical colleges and, in Victoria, junior technical schools.

2. *Non-Government Schools Finance.*—Most Roman Catholic parochial schools do not charge fees, but families make a contribution if they can afford to do so. With this exception, pupils of non-government schools must ordinarily pay fees. At the majority of non-government secondary schools, privately endowed scholarships are available in varying numbers, and reductions in fees are normally made for children of clergy or for two or more members of one family attending the same school.

Certain State scholarships and bursaries are, as noted above, tenable at approved non-government secondary schools. Since the establishment of educational systems by the State Governments, official policy has been largely against the provision of direct financial assistance to non-government schools. The eight undenominational grammar schools in Queensland, however, receive a State subsidy under the Grammar Schools Acts 1860-1900. In 1956, the Commonwealth Government arranged to contribute to the interest payments on loans raised by churches in order to build denominational secondary schools in the Australian Capital Territory.

3. **Technical Education Expenditure.**—The expenditure on technical education in each State for 1959 is shown in the following table:—

TECHNICAL EDUCATION: EXPENDITURE, 1959.

(Including Loan Fund Expenditure.)

(£.)

State.	Salaries and Maintenance.	Equipment.	Buildings.	Other.	Gross Expenditure.	Receipts—Fees, etc.	Net Expenditure.
New South Wales ..	3,468,175	171,608	905,117	173,390	4,718,290	560,513	4,157,777
Victoria(a)(b) ..	4,183,322	100,000	1,201,688	986,753	6,471,763	568,479	5,903,284
Queensland ..	661,093	223,151	(c) 29,327	8,608	(e) 922,179	90,974	(e) 831,205
South Australia ..	958,835	(d)	736,695	30	1,695,560	127,786	1,567,774
Western Australia(b)	716,408	(d)	112,452	..	828,860	67,691	761,169
Tasmania(b) ..	235,401	24,434	25,099	15,258	300,192	2,976	297,216
Aust. Capital Terr.(b)	51,081	4,027	..	4,711	59,819	6,296	53,523
Australia ..	10,274,315	523,220	e3,010,378	1,188,750	e14,996,663	1,424,715	e13,571,948

(a) Includes expenditure on Junior Technical Schools. In other States, this type of expenditure is included with expenditure on Government schools. (b) Year ended June, 1959. (c) Excludes loan expenditure. (d) Included with salaries and maintenance. (e) See note (c).

Fees and other receipts are paid into Consolidated Revenue in all States except Victoria, where they are retained and spent by the Technical School Councils. The expenditure on buildings is financed largely from loan moneys, the sums provided from this source in 1959 being: New South Wales, £746,989; Victoria, £1,903,896; Queensland, not available; South Australia, £708,400; Western Australia, £25,569; Tasmania, £19,523.

§ 8. Commonwealth Activities.

Although the primary responsibility for education rests with the States, the Commonwealth Government is committed to a number of educational activities related to its other functions. For example, it maintains officer training colleges and education services for each of its defence services, a School of Pacific Administration for the training of administrative and other officers for service in Commonwealth Territories, and a School of Forestry. In each of the Australian Territories, the educational programme provides for both the native and European children who live there. References to these programmes appear in Chapter V.—The Territories of Australia.

The Australian Broadcasting Commission features school broadcasts and other educational broadcasts as part of its daily programmes. The Commonwealth Scientific and Industrial Research Organization undertakes research, the results of which are made available to educational institutions. Under the Commonwealth Reconstruction Training Scheme, many ex-servicemen and women have received training which has enabled them to enter a variety of trades and professions.

The Commonwealth Office of Education, established under the Education Act 1945, acts as the Commonwealth's educational adviser, undertakes research work as Commonwealth activities require, and is the channel for liaison between Commonwealth and State educational authorities. Some of its major commitments are those related to international relations in education, including the association of Australia with the aims and activities of the United Nations Educational, Scientific and Cultural Organization (UNESCO), the teaching of English as a second language and the provision of scholarships and fellowships for selected students under the Technical Co-operation Scheme (Colombo Plan) and under the scheme known as Australian International Awards. The office also acts as a co-ordinating body in the administration of the British Commonwealth Scholarship and Fellowship Plan.

The activities of the Commonwealth Scholarships Board, which was formerly known as the Universities Commission, are described in § 10, para. 5 of this chapter.

The Commonwealth assists a number of other bodies concerned with education. Besides grants to organizations such as the Australian Council for Educational Research, grants are made to the States, on the recommendation of the Australian Universities Commission, for payment to universities.

Further details of Commonwealth assistance to students (including the Commonwealth Scholarship Scheme) and of grants for universities are given in § 10, para. 5 of this chapter.

§ 9. Australia and International Relations in Education.

Australia has always been responsive to educational developments in overseas countries, particularly those in the United Kingdom, but it is only recently that it has begun to make any considerable impact on educational thought overseas.

In this connexion, there have been important developments since the 1939-45 War. For instance, there has been a remarkable increase in the volume of information on educational matters exchanged between Australia and South-east Asia, and Australia participates in the Technical Co-operation Scheme (Colombo Plan), the United Nations Technical Assistance programme, the cultural programme of SEATO, and the scheme of Australian International Awards, under which a limited number of scholarships are given annually. Australia also participates in the British Commonwealth Scholarship and Fellowship Plan. In 1959, there were 4,413 overseas students, most of them Asian, attending institutions of higher learning in Australia; of these, 2,352 were in universities and 1,503 in technical colleges.

Perhaps the most important single factor behind the quickening of Australian interest in international cultural affairs has been membership of UNESCO. Australia has been a member since 1946. Twelve expert committees in Australia are responsible for a wide and varied programme of activities on behalf of UNESCO. Their advice has helped to make Australia's contribution to international conferences and seminars highly effective. Other work undertaken by these committees has included the provision of technical material and advice to the countries of South and South-east Asia, the conducting of seminars in Australia, arranging for exhibitions and displays in Australia and overseas, and the publication of handbooks and brochures to assist teachers and other persons in meeting the problems involved in educating for international understanding.

The Australian National Advisory Committee for UNESCO, on which all the other committees are represented, advises the Commonwealth Government and co-ordinates the work of the specialist committees.

§ 10. Universities.

1. **General.**—There are at present ten universities in Australia. The following list shows the date of foundation and the faculties existing at each.

University of Sydney, established in 1850, located in Sydney, New South Wales. Agriculture, Architecture, Arts, Dentistry, Economics, Engineering, Law, Medicine, Science, Veterinary Science.

University of Melbourne, established in 1853, located in Melbourne, Victoria. Agriculture, Architecture, Arts, Dental Science, Economics and Commerce, Education, Engineering, Law, Medicine, Music, Science, Veterinary Science.

University of Adelaide, established in 1874, located in Adelaide, South Australia. Agricultural Science, Architecture and Town Planning, Arts, Dentistry, Economics, Engineering, Law, Medicine, Music, Science, Technology.

University of Tasmania, established in 1890, located in Hobart, Tasmania. Arts, Commerce, Engineering, Law, Science.

University of Queensland, established in 1909, located in Brisbane, Queensland. Agriculture, Architecture, Arts, Commerce and Economics, Dentistry, Education, Engineering, Law, Medicine, Science, Veterinary Science.

University of Western Australia, established in 1912, located in Perth, Western Australia. Agriculture, Arts, Dental Science, Economics, Education, Engineering, Law, Medicine, Science.

Australian National University, established in 1946, located in Canberra, A.C.T. *Institute of Advanced Studies*: John Curtin School of Medical Research, the Research School of Physical Sciences, the Research School of Social Sciences, the Research School of Pacific Studies. *School of General Studies* (consisting substantially of the former Canberra University College): Arts, Economics, Law, Science.

University of New South Wales, established in 1958 (established 1948 as New South Wales University of Technology), located in Sydney, New South Wales. Architecture, Arts, Commerce, Engineering, Medicine, Science, Technology. The University also provides part-time instruction in science and engineering at technical colleges in country towns in New South Wales.

University of New England, established in 1954 (established 1938 as New England University College), located in Armidale, New South Wales. Agricultural Economics, Arts, Rural Science, Science.

Monash University, established in 1958, located in Melbourne, Victoria. Arts, Economics and Political Science, Engineering, Medicine, Science.

There are also two university colleges in Australia:—Newcastle University College, founded in 1951, located in Newcastle, New South Wales, is affiliated with the University of New South Wales and has degree courses in the faculties of Applied Science, Architecture, Arts, Commerce, Engineering, Technology and Science. The Arts courses at the Newcastle University College are provided by the University of New England in co-operation with the University of New South Wales. Townsville University College, founded in 1961, located in Townsville, Queensland, is affiliated with the University of Queensland and has first-year degree courses in the faculties of Arts and Science.

2. Expansion within the Universities.—Within the past 20 years, the appearance of some of the universities has altered to a striking extent. Many new permanent buildings and some temporary ones have been erected and new wings have been added. The universities are expanding their accommodation greatly to meet an expected record enrolment in the next decade.

There was a continuing increase in university enrolments from 1929 (approximately 9,000) to 1940, followed by a slight recession. In the closing year of the 1939–45 War, however, the number of students had risen beyond any previous figure, and rapid post-war expansion was responsible for a peak enrolment of 32,453 students in 1948. After 1948, the numbers decreased each year until 1953 as ex-service personnel completed their training under the Commonwealth Reconstruction Training Scheme. Thereafter, enrolments increased again and it is expected that they will continue to increase rapidly. Enrolments in 1959 were 47,447.

3. Courses.—A brief survey of developments in university courses since the war and up to 1954 was given in the Official Year Book No. 42 (p. 476). Outlines of some developments from 1954 to 1959 have appeared in successive Year Books. Developments since 1959 have included the establishment of a number of courses offered for the first time in Australia, as follows:—

At the University of New South Wales, Sociology and Librarianship were offered for the first time in 1960. The former is a subject for the Bachelor of Arts degree, and the latter a Diploma Course. Ceramic Engineering for the Bachelor of Applied Science degree will be offered in 1961.

At the University of Melbourne, a post-graduate Diploma of Criminology will be offered in 1961.

At the University of New England, a post-graduate Diploma of Educational Administration for external students commenced in 1960; a post-graduate Bachelor of Letters degree for external students will be offered in 1961.

Other developments included the establishment of a faculty of Arts at the University of New South Wales in 1960; a proposal to establish a faculty of Applied Science at the University of Melbourne in 1961; a faculty of Medicine at the University of New South Wales in 1961; a school of Oriental Studies at the University of Melbourne in 1961; and the establishment of a Bachelor of Education in Pre-primary, Primary, or Physical Education at the University of Sydney in 1960.

For the majority of university courses, full-time attendance is required. At most universities, however, certain courses, such as arts, commerce and economics, may also be undertaken by part-time or evening study. At the University of New South Wales, a variety of degree courses are available to evening students.

Several universities have limited systems of external tuition whereby students in country areas may take a restricted number of courses by correspondence. The University of Queensland has developed a system of correspondence tuition which now caters not only for students within the State but for those in the Northern Territory, Papua and New Guinea and adjacent Pacific islands. External students within Queensland receive tutorial assistance at university centres in the principal country towns. In addition, the university operates in the Colombo Plan Correspondence Scholarship Scheme (*see pp. 598–9*).

The University of New England's Department of External Studies offers a wide range of subjects for external study, leading to the degree of Bachelor of Arts and the Diploma in Education. External students must attend short annual residential schools of instruction in their subjects, usually held at the university.

4. Research.—A wide range of research work is carried out by the universities as part of their normal functions. The research activities of the universities have been greatly stimulated over recent years by the interest and assistance of the Commonwealth and State Governments, government instrumentalities such as the Commonwealth Bank, the Rural Bank of New South Wales, and the C.S.I.R.O., private foundations, both overseas and

Australian, such as the Nuffield Foundation, the Carnegie Corporation and the Water Research Foundation of Australia, and industrial undertakings. Details of research work carried out at each university can be obtained from its calendar or research report.

Grants are made by the Commonwealth Government to bodies such as the Post-Graduate Committee in Medicine at the University of Sydney to facilitate arrangements for medical specialists from overseas to lecture and demonstrate advanced techniques in Australia.

Grants have been made by the Commonwealth Government, through the Australian Atomic Energy Commission, to a number of Australian universities for nuclear research.

The further expansion of teaching and research in various agricultural and veterinary fields was assisted by the annual and special grants of the Commonwealth Bank's Rural Credits Development Fund to several Australian universities. The C.S.I.R.O. also contributed to research in these and other fields.

5. The Commonwealth and the Universities—(i) General. The Commonwealth has given support to the Australian universities for many years. Prior to 1939, Commonwealth assistance was almost entirely concerned with research projects carried out by or in collaboration with the universities. During and since the 1939–45 War, the Commonwealth extended assistance to university students, at first to increase the number of highly trained people required for the war effort, then with the object of rehabilitating ex-servicemen, and finally as a social service benefit to the community. For the purpose of reconstruction training, the Commonwealth Government made available to the universities approximately £1 million for buildings and £500,000 for equipment. Since 1951, the Commonwealth has made special grants to the States for their universities and during the same time has continued to support the university institutions for which it is responsible.

(ii) *Assistance to Students.* Up to 1945, the Universities Commission functioned under National Security Regulations, but in that year it was established on a permanent basis under the Education Act. After the 1939–45 War, the Commission continued to provide financial assistance to students under an interim scheme until 1951, when the interim scheme was superseded by the Commonwealth Scholarships Scheme, and the Universities Commission became the Commonwealth Scholarships Board.

As from January, 1961, the number of Commonwealth scholarships granted annually was increased from a maximum of 3,000 to a maximum of 4,000. These are allocated to the States on a population basis and are tenable at universities and other approved institutions. Awards are made on merit and all successful applicants have their fees paid. In addition, scholarship holders may be paid a living allowance subject to a means test. As from 1st January, 1959, the maximum rates of allowance have been £338 per annum for a scholar living away from home and £221 per annum in the case where he lives at home.

At 30th September, 1960, 15,002 scholars had completed courses of training under the Scheme. At the same date, there were 11,756 scholars in training, of whom 10,861 were at universities and 895 at other institutions.

As from 1st January, 1959, post-graduate awards for training at Australian Universities were made available under the Scheme. One hundred awards were granted in 1960 and a similar number will be available each year. The benefits comprise a living allowance without a means test and payment to universities for tuition and facilities.

The Commonwealth Scholarships Board also provides for the training at universities and similar institutions of ex-service personnel and war widows under the Reconstruction Training Scheme, the Korea and Malaya Training Scheme and the Disabled Members' and Widows' Training Scheme. A detailed description of the Reconstruction Training Scheme was given on page 240 of Official Year Book No. 39. At 30th September, 1960, 21,500 students had completed courses under these schemes and at the same date there were 72 in training.

(iii) *Commonwealth Grants to the States for University Purposes.* Following a report submitted by a committee of inquiry appointed to report on university finances and requirements, the Commonwealth, since 1951, has made grants to the States for recurrent expenditure on university purposes. The payments have been made under the various States Grants (Universities) Acts.*

In 1957, the Prime Minister appointed a committee to investigate the problems of Australian universities. The Committee was given wide terms of reference. Among other things, it was asked to consider the role of the university in the Australian community,

* No. 81 of 1951; No. 75 of 1953; No. 28 of 1955; No. 37 of 1956; No. 7 of 1957; and No. 27 of 1958.

the extension and co-ordination of university facilities, technological education at university level, the financial needs of universities and appropriate means of providing for those needs, and the Commonwealth Scholarship Scheme.

In accepting the principal recommendations of the Committee (Murray Report)*, the Commonwealth agreed to continue grants for recurrent expenditure in 1958, 1959 and 1960, to make additional unmatched recurrent grants, and to assist with the capital needs of the universities for building projects and for equipment. The Commonwealth was also to provide grants between 1958 and 1960 for the building programmes of residential colleges affiliated with universities.

The States Grants (Universities) Act No. 27 of 1958 operated from 1st January, 1958, and gave effect to these recommendations. This Act amended those parts of the States Grants (Universities) Act No. 7 of 1957 which referred to 1958 and provided for payments for 1957 to the South Australian School of Mines and Industries (now the South Australian Institute of Technology).

Under the Australian Universities Commission Act No. 30 of 1959, the Australian Universities Commission was established. Its principal functions are to advise the Prime Minister on financial assistance to Commonwealth Universities and to States in relation to their Universities and also on the balanced development of Australian Universities. The Commission commenced its work in July, 1959. The first report of the Commission, covering the period 1961-63 was presented in October, 1960. The Commission recommended that Commonwealth grants should be approximately twice as great as grants available in the period 1958-60. The Commonwealth has accepted these recommendations.

The maximum Commonwealth recurrent grants for 1960 are shown in the following table:—

RECURRENT COMMONWEALTH GRANTS TO UNIVERSITIES, 1960.
(£.)

University.	Emergency Grant for Recurrent Expenditure.	Amount to be paid from (2) for Teaching and Administrative Costs of Residential Colleges.	General Grant for Recurrent Expenditure.	Amount to be paid from (4) for Teaching and Administrative Costs of Residential Colleges.
(1)	(2)	(3)	(4)	(5)
New South Wales—				
The University of Sydney ..	480,000	12,200	820,100	16,300
The University of New South Wales ..	230,000	4,000	402,525	5,300
The University of New England ..	66,000	3,500	90,200	4,600
Victoria—				
University of Melbourne ..	430,000	12,000	719,300	16,000
Queensland—				
University of Queensland ..	270,000	8,400	421,700	11,100
South Australia—				
The University of Adelaide ..	258,000	5,200	391,025	6,900
The South Australian Institute of Technology .. ..	..	..	47,600	400
Western Australia—				
The University of Western Australia ..	180,000	3,600	268,500	4,800
Tasmania—				
The University of Tasmania ..	86,000	1,100	134,450	1,400
Total	2,000,000	50,000	3,295,400	66,800

The emergency grant for recurrent expenditure (column 2) is an unmatched grant aimed at assisting the universities to meet some of their most urgent deficiencies in staff and equipment. The general grant for recurrent expenditure is a continuation of matched grants provided since 1951, and the maximum amount available in 1960 is shown in column 4. In general terms, the matched grants are made on a basis of £1 of Commonwealth money for every £3 of income received by a university from fees and State grants.

* Report of the Committee on Australian Universities (Canberra, Commonwealth Government Printer, 1957).

Columns 3 and 5 of the table above show the amounts which are required to be paid by each university from the emergency and the general recurrent grants, respectively, for the teaching and administrative costs of residential colleges administered by or affiliated with the university.

Between 1958 and 1960, the Commonwealth made grants for selected building projects, shown in detail in the Third Schedule to the 1958 Act. Payments were made up to a given maximum for each project, in the same proportion to State grants for these projects as that shown in the totals given for each university in the following table:—

COMMONWEALTH GRANTS FOR UNIVERSITY BUILDING PROJECTS, ETC.
(£.)

University.	Commonwealth Contribution.	State Contribution.
New South Wales—		
The University of Sydney	1,300,000	750,000
The University of New South Wales	950,000	1,500,000
The University of New England	450,000	450,000
Victoria—		
University of Melbourne	875,000	875,000
Monash University	75,000	75,000
Queensland—		
University of Queensland	775,000	775,000
South Australia—		
The University of Adelaide	375,000	375,000
Western Australia—		
The University of Western Australia	630,000	505,000
Tasmania—		
The University of Tasmania	840,000	670,000
Total	6,270,000	5,975,000

In addition, a grant of 16 per cent. of the cost to the Commonwealth of each project was made for equipment.

The Commonwealth also made grants for capital buildings for residential colleges affiliated with a university. The Commonwealth made grants of one half of the cost, at the request of a State, for the purchase, erection or alteration of a building at an affiliated residential college. The maximum amount available for distribution in each State in the period 1958–60 is shown in the following table:—

MAXIMUM COMMONWEALTH GRANTS FOR RESIDENTIAL COLLEGE BUILDINGS.

(£.)

State.	Maximum Grant.
New South Wales	180,000
Victoria	170,000
Queensland	110,000
South Australia	80,000
Western Australia	40,000
Tasmania	20,000
Total	600,000

The grants for capital building projects at universities and residential colleges were payable at any time within the period 1958–60.

6. **Teaching and Research Staff.**—The following table shows particulars of the teaching and research staff of Australian universities during 1959:—

UNIVERSITIES: TEACHING AND RESEARCH STAFF, 1959.

University or College.	Pro-fessors.	Readers. (a)	Lecturers.(b)		Demonstrators, Tutors and Research Assistants.		Honor- ary Lec- turers and Demon- strators.	Total.
			Full- time.	Part- time.	Full- time.	Part time.(c)		
Australian National University	23	19	(d) 93	..	19	10	..	164
Sydney	63	48	447	240	128	115	53	1,094
New South Wales	26	23	408	331	(e) 138	..	(f) 3	929
New England	18	10	94	11	38	..	(g) 3	174
Melbourne	50	67	294	110	129	200	..	850
Queensland	33	39	204	92	89	9	(h) 61	527
Adelaide	39	37	190	68	34	121	..	489
Western Australia	32	29	120	51	15	34	67	348
Tasmania	18	9	61	28	7	6	..	129
Canberra University Col- lege	18	5	36	24	7	8	..	98
Total	320	286	1,947	955	604	503	187	4,802

(a) Includes associate professors, assistant professors and lecturers-in-charge. (b) Includes senior lecturers and assistant lecturers. (c) Excludes part-time demonstrators. (d) Senior fellows, fellows and research fellows. (e) Includes technical officers. (f) Includes 2 Department of External Studies. (g) Department of External Studies. (h) Includes 59 Department of External Studies.

The following table gives details of the teaching and research staff of Australian universities for each year from 1955 to 1959:—

UNIVERSITIES: TEACHING AND RESEARCH STAFF, SUMMARY, AUSTRALIA.

Year.	Pro-fessors.	Readers. (a)	Lecturers.(b)		Demonstrators, Tutors and Research Assistants.		Honor- ary Lec- turers and Demon- strators.	External Studies Staff.	Total
			Full- time.	Part- time.	Full- time.	Part- time.(c)			
1955	245	177	1,290	1,079	291	379	66	29	3,556
1956	265	196	1,383	1,052	(d) 400	409	50	29	3,784
1957	274	229	1,494	958	(d) 410	406	51	30	3,852
1958	292	256	1,733	982	(d) 490	462	51	37	4,303
1959	320	286	1,947	955	(d) 604	503	123	64	4,802

(a) Includes associate professors, assistant professors and lecturers-in-charge. (b) Includes senior lecturers, assistant lecturers, senior fellows, fellows and research fellows. (c) Excludes part-time demonstrators. (d) Includes technical officers of the University of New South Wales.

7. **Students.**—(i) *Total.* The number of students enrolled for courses at the universities for the year 1959 is shown in the following table:—

UNIVERSITIES: STUDENTS ENROLLED, 1959.

University or College.	Degree Courses.	Diploma Courses.		Certificate Courses.	Miscellaneous Subjects.	Adjusted Total.(a)
		Post-graduate.	Sub-graduate.			
Australian National University..	114	..	..	..	4	118
Sydney	8,867	227	990	..	232	10,218
New South Wales	3,015	14	3,431	143	291	6,877
New England	1,667	170	..	..	47	1,874
Melbourne	9,132	234	393	134	594	10,279
Queensland	5,240	63	686	1,090	398	7,444
Adelaide	3,943	138	813	12	883	5,714
Western Australia	2,964	91	..	..	118	3,164
Tasmania	899	70	73	196	72	1,274
Canberra University College ..	446	..	19	..	142	603
Total	36,287	1,007	6,405	1,575	2,781	47,565

(a) Adjustment made for students enrolled for more than one course.

Of the students enrolled in 1959, 36,830 were males and 10,735 females. Included in those enrolled for degrees were 114 enrolled for higher degree courses at the Australian National University, 481 in Sydney, 376 at the University of New South Wales, 68 at the University of New England, 413 in Melbourne, 220 in Queensland, 236 in Adelaide, 223 in Western Australia, 66 in Tasmania, and 29 at the Canberra University College.

The following table shows the number of students enrolled at Australian universities for each of the years from 1955 to 1959:—

UNIVERSITIES: STUDENTS ENROLLED, SUMMARY, AUSTRALIA.

Year.	Degree Courses.		Diploma Courses.		Certificate Courses.	Miscellaneous Subjects.	Adjusted Total.(a)
	Higher Degrees.	Bachelor Degrees.	Post-graduate.	Sub-graduate.			
1955	1,094	21,539	321	5,153	801	2,130	30,868
1956	1,188	23,686	550	5,977	1,025	2,206	34,480
1957	1,357	26,153	735	5,834	1,135	2,006	36,903
1958	1,672	29,920	846	6,168	1,427	2,431	41,865
1959	2,226	34,061	1,007	6,405	1,575	2,781	47,565

(a) Adjustment made for students enrolled for more than one course.

(ii) *New Students Enrolled.* The number of new students enrolled for courses at the universities during the year 1959 is shown in the following table:—

UNIVERSITIES: NEW STUDENTS ENROLLED, 1959.

University or College.	Degree Courses.	Diploma Courses.		Certificate Courses.	Miscellaneous Subjects.	Adjusted Total.(a)
		Post-graduate.	Sub-graduate.			
Australian National University..	50	..	..	..	3	53
Sydney	2,555	62	358	..	107	3,082
New South Wales	931	5	763	66	177	1,942
New England	747	94	..	..	33	874
Melbourne	2,446	24	153	20	254	2,838
Queensland	1,368	6	179	317	222	2,090
Adelaide	964	2	238	..	362	1,562
Western Australia	834	2	..	..	46	882
Tasmania	256	3	19	80	33	390
Canberra University College ..	188	..	2	..	84	272
Total	10,339	198	1,712	483	1,321	13,985

(a) Adjustment made for students enrolled for more than one course.

Of the new students enrolled in 1959, 10,053 were males and 3,932 females. Included in those enrolled for degrees were 252 enrolled for higher degree courses—Australian National University 50, Sydney 27, University of New South Wales 72, New England 26, Melbourne 23, Queensland 17, Adelaide 16, Western Australia 7, Tasmania 9 and Canberra University College 5.

The following table shows the number of new students enrolled at Australian universities during each of the years from 1955 to 1959:—

UNIVERSITIES: NEW STUDENTS ENROLLED, SUMMARY, AUSTRALIA.

Year.	Degree Courses.		Diploma Courses.		Certificate Courses.	Miscellaneous Subjects.	Adjusted Total.(a)
	Higher Degrees.	Bachelor Degrees.	Post-graduate.	Sub-graduate.			
1955	125	5,791	55	1,412	254	926	8,549
1956	134	6,881	112	2,184	317	976	10,590
1957	119	7,401	121	1,601	333	874	10,418
1958	211	8,936	92	1,657	457	1,194	12,387
1959	252	10,087	198	1,712	483	1,321	13,985

(a) Adjustment made for students enrolled for more than one course.

8. **Principal University Benefactions.**—Issues of the Official Year Book up to No. 40 included details of the principal private benefactions to universities. (See Year Book No. 40, pp. 467–8.)

9. **University Income for General Activities.**—The income of the universities is derived principally from State and Commonwealth Government grants, students' fees, and income from private foundations. From all sources other than new bequests, the income during 1959 for general university functions was as shown in the table below. In South Australia, Government grants and income from private foundations include amounts in respect of the Waite Agricultural Research Institute.

UNIVERSITIES: INCOME FOR GENERAL ACTIVITIES, 1959.

(£.)

University or College.	Government Grants.	Students' Fees.	Interest, Rent, Dividends and Donations.	Other.	Total.
Australian National University	2,253,600	930	57,280	76,693	2,388,503
Sydney	2,118,794	782,305	93,723	48,262	3,043,084
New South Wales	3,208,623	265,675	..	69,267	3,543,565
New England	700,619	60,135	1,498	105,535	867,787
Melbourne	2,074,812	649,962	56,145	54,115	2,835,034
Queensland	1,443,674	350,629	29,521	40,303	1,864,127
Adelaide	1,768,612	149,042	58,149	18,685	1,994,488
Western Australia	1,050,821	58,832	35,053	50,237	1,194,943
Tasmania	554,625	45,068	529	16,871	617,093
Canberra University College..	422,475	17,500	..	2,804	442,779
Total	15,596,655	2,380,078	331,898	482,772	18,791,403

10. *University Expenditure for General Activities.*—The principal item of disbursements on general university activities is the maintenance of the teaching and research staff, representing 62.0 per cent. of the total in 1959 compared with 65.9 per cent. in 1958.

The following table shows the expenditure including capital expenditure during the year 1959:—

UNIVERSITIES: EXPENDITURE FOR GENERAL ACTIVITIES, 1959.
(£.)

University or College.	Adminis- tration.	Maintenance of—			Other (including Buildings).	Total.
		Teaching and Research Depart- ments.	Premises and Grounds.	Libraries.		
Australian National University	145,038	1,202,213	147,115	58,361	491,247	2,043,974
Sydney	363,486	1,879,813	253,294	152,910	481,236	3,130,739
New South Wales	228,149	1,819,703	231,464	96,344	919,224	3,294,884
New England	117,118	447,181	67,640	48,368	207,932	888,239
Melbourne	220,602	1,969,524	313,531	110,257	239,162	2,853,076
Queensland	123,623	1,412,904	106,140	87,659	64,951	1,795,277
Adelaide	142,531	1,201,192	150,361	82,721	577,370	2,154,175
Western Australia	90,158	795,354	94,630	54,699	129,179	1,164,020
Tasmania	64,209	450,355	35,202	45,955	106,495	702,216
Canberra University College..	46,079	254,520	15,794	44,926	42,784	404,103
Total	1,540,993	11,432,759	1,415,171	782,200	3,259,580	18,430,703

11. *Funds for Special Purposes.*—(i) *General.* The tables shown in paras. 9 and 10 relate to general university activities, while the two which follow show the financial position of the special purpose funds which are, in the main, for special research purposes.

(ii) *Income for Special Purposes.* The following table shows the main items of income for the year 1959:—

UNIVERSITIES: INCOME FOR SPECIAL PURPOSES, 1959.
(£.)

University or College.	Govern- ment Grants.	Interest, Rent, Dividends and Donations.	Public Examina- tion Fees.	Special Research Grants.	Other.	Total.
Australian National University	..	14,214	..	61,628	..	75,842
Sydney	1,257,930	88,862	..	744,030	50,418	2,141,240
New South Wales .. .. .	..	303,280	..	83,891	19,875	407,046
New England	860,600	25,247	..	36,813	21,664	944,324
Melbourne	767,729	476,384	146,234	311,897	111,620	1,813,864
Queensland	3,000	72,349	68,051	54,037	82,724	280,161
Adelaide	18,750	49,679	46,539	134,716	34,885	284,569
Western Australia	320,628	103,411	46,049	90,041	33,434	593,563
Tasmania	69,534	3,984	6,312	27,315	230	107,375
Canberra University College ..	53,000	60	..	2,650	800	56,510
Total	3,351,171	1,137,470	313,185	1,547,018	355,650	6,704,494

(iii) *Expenditure for Special Purposes.* The following table shows the main items of expenditure for the year 1959:—

UNIVERSITIES: EXPENDITURE FOR SPECIAL PURPOSES, 1959.

(£.)

University or College.	Special Purpose Funds (Research)	Other Special Purposes.	Public Examination Expenses.	Scholarships, Bursaries, etc.	Other (including Buildings).	Total.
Australian National University	..	..	..	11,187	38,320	49,507
Sydney	466,829	577,494	..	28,441	552,549	1,625,313
New South Wales	90,037	128,011	..	16,893	..	234,941
New England	28,971	965	..	2,343	458,958	491,237
Melbourne	308,876	217,393	112,683	9,134	502,182	1,150,268
Queensland	84,206	90,373	90,075	18,718	16,400	299,772
Adelaide	164,918	48,727	47,688	5,486	..	266,819
Western Australia	83,732	14,870	43,935	35,698	438,619	616,854
Tasmania	25,770	..	5,434	3,785	..	34,989
Canberra University College ..	2,650	39,296	..	15,330	..	57,276
Total	1,255,989	1,117,129	299,815	147,015	2,007,028	4,826,976

12. *Degrees Conferred, etc.*—The following table shows the number of degrees conferred and diplomas and certificates granted for males and females separately at each university during the year 1959:—

UNIVERSITIES: DEGREES CONFERRED, AND DIPLOMAS AND CERTIFICATES GRANTED, 1959.

Course.	Aust. National Univ.		Sydney.		New South Wales.		New England.		Melbourne. (a)		Queensland.		Adelaide.		Western Australia.		Tasmania.		Australia.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Degrees—																				
Agriculture..	..	..	45	9	..	..	..	..	55	2	17	..	22	..	10	..	..	..	149	11
Architecture ..	..	..	15	3	3	..	..	..	34	2	2	..	..	..	..	..	..	..	54	5
Arts ..	10	..	182	174	..	..	56	62	178	161	69	51	40	32	74	33	38	27	647	540
Dentistry ..	..	..	44	6	..	..	..	..	17	4	28	1	5	2	9	1	..	..	103	14
Divinity ..	..	..	1	..	..	..	..	..	..	..	4	..	..	..	..	..	..	..	5	..
Economics ..	..	..	59	5	8	..	..	..	90	8	51	1	18	1	2	..	15	1	243	16
Education ..	..	..	2	..	..	..	..	..	48	7	18	3	..	..	20	5	..	..	88	15
Engineering ..	..	..	105	1	99	..	..	..	115	..	61	..	62	1	31	..	8	..	481	2
Law ..	..	..	73	8	..	..	..	..	66	11	12	..	10	4	16	1	..	..	185	24
Medicine(b)	1	1	163	35	..	..	..	..	83	18	45	3	55	5	13	..	..	..	360	62
Music ..	..	..	..	..	..	..	..	..	4	13	..	..	1	3	..	..	..	..	5	16
Science ..	4	..	148	56	114	4	24	5	160	34	83	26	92	21	52	13	36	2	713	161
Veterinary ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Science ..	..	..	26	1	..	..	..	..	..	..	14	1	..	..	..	..	..	..	40	2
Technology ..	..	..	..	..	..	..	..	..	..	..	..	..	40	..	..	..	..	..	40	..
Total ..	15	1	863	298	224	4	80	67	850	260	404	86	345	69	227	53	105	30	3,113	868
Post-graduate																				
Diplomas—																				
Education ..	..	..	54	65	..	..	40	38	38	22	20	16	20	6	38	11	17	10	227	168
Medicine ..	..	..	56	5	..	..	..	..	12	1	..	..	..	..	..	..	..	..	68	6
Other ..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	2	..
Total ..	..	..	110	70	..	..	40	38	52	23	20	16	20	6	38	11	17	10	297	174
Sub-graduate																				
Diplomas ..	..	..	18	7	..	..	..	..	17	28	48	38	76	63	..	..	4	..	163	136
Certificates ..	..	..	..	..	..	..	..	..	..	..	121	14	..	..	..	..	1	12	122	26

(a) Includes degrees conferred on students of the Canberra University College.
of B.S. degrees conferred.

(b) Excludes the number

§ 11. Other Aspects of Education.

1. **General.**—Beyond the schools, colleges and universities, there are agencies engaged in less direct educational work which cannot be readily assessed and described. Among these are such things as press, film, radio and television, which are powerful educational forces—whether they are used specifically to disseminate information such as new agricultural techniques or preventative health measures, or, on the other hand, in a much more general way to exert an influence on the cultural level of the population. There are also bodies and institutions such as the adult education authorities, libraries, art galleries and museums which aim at catering for the educational and cultural needs of the general public.

2. **Adult Education.**—(i) *General.* The term “adult education” is used in Australia to refer in the main to non-vocational educational and cultural activities for adults provided by some of the universities and by various adult education authorities, which vary in form from State to State. In 1960, an Australian Association for Adult Education was formed. It will handle matters pertaining to adult education at a national level and arrange liaison with similar bodies in other countries.

The Workers' Educational Association movement, which has for its object the bringing of the universities into closer relationship with the community in general and providing for higher education in civic and cultural subjects, has been active in Australia. In 1913, associations were formed in all the Australian States. In four States, the associations have been superseded by Adult Education Boards or Councils set up by the State Governments in Victoria, Queensland and Tasmania and by the university in Western Australia. In the other two States, New South Wales and South Australia, the associations continue to co-operate with the universities in their extension work and are given direct grants by the governments concerned.

While the choice of courses offered by these bodies is naturally more limited in the smaller States, a variety of topics, including social studies and current affairs, language and literature, drama, music, arts and crafts, are available in all States.

(ii) *New South Wales.* (a) *Adult Education Advisory Board.* State Government grants for adult education are allocated by the Adult Education Advisory Board. Grants are made to the University of Sydney (Department of Tutorial Classes), the Workers' Educational Association, the University of New England (Department of Adult Education), the Public Library of N.S.W. (Adult Education Section), and the Arts Council of Australia (N.S.W. Division).

(b) *University of Sydney.* The Extension Board of the University of Sydney provides lectures and short courses in city and country.

In 1914, the Department of Tutorial Classes was established to provide classes and study groups along the lines of similar work in England. Its activities include the provision of tutorial classes in a wide variety of subjects, discussion groups and “kits” to serve the needs of country districts and people who cannot be catered for by tutorial classes, and publication of the fortnightly *Current Affairs Bulletin*. This publication, begun in 1942 and produced for four years by the Australian Army Education Service, was recommenced in 1947 as a civilian and service publication by the Commonwealth Office of Education. At the beginning of 1952, the Department of Tutorial Classes took over full responsibility for the bulletin. It receives an annual grant from the Commonwealth Government for this purpose.

In 1959, there were 145 tutorial classes with a total enrolment of 4,572 and 152 discussion groups with a total enrolment of 2,114.

The department works in conjunction with the Workers' Educational Association through the Joint Committee of Tutorial Classes, appointed by the university senate.

(c) *Workers Educational Association.* In addition to co-operating with the Department of Tutorial Classes in organizing certain classes and groups, the Association itself provides classes in a wide variety of fields. It publishes *Highway*, a bi-monthly journal of adult education, and maintains a property near Sydney where short residential schools are held throughout the year.

In 1959, the Association ran 69 classes, for which there were 4,018 enrolments.

(d) *University of New England.* When the New England University College became an autonomous university in 1954, its Department of Adult Education took over full responsibility for the activities formerly undertaken by it on behalf of the Department of Tutorial Classes of the University of Sydney. It brings university extension activities to

the people of northern New South Wales and conducts classes in arts and social sciences in towns throughout this region. Short residential courses are held on topics of interest to primary producers in the area.

(e) *Public Library of New South Wales.* The Public Library's adult education section provides an adult education library service for all classes and groups conducted by the Department of Tutorial Classes of the University of Sydney, the Workers' Educational Association, and the Department of Adult Education of the University of New England.

(f) *Arts Council.* The New South Wales Division of the Arts Council of Australia provides a mobile theatre unit and organizes touring companies in ballet, opera and drama to country towns. Musicians provide some short lecture courses in the city.

(g) *Education Department.* The New South Wales Education Department provides evening colleges, housed in its schools and staffed by trained teachers, which provide non-vocational courses in a wide variety of crafts and dramatic and musical activities. Adults may prepare for the Intermediate and Matriculation examinations at certain of these colleges.

(iii) *Victoria.* The Council of Adult Education is a government instrumentality established by the Adult Education Act 1946. Its aims are to stimulate adult education in Victoria and to encourage voluntary organizations and associations by giving them advice and assistance. Its activities include a variety of classes on topics ranging from social studies, psychology, language and literature, to crafts, music, drama, etc., and usually lasting from 10 to 20 weeks. An annual 10-day summer school is another important activity. The Council publishes a bi-monthly bulletin, *C.A.E. Newsletter* and a quarterly journal, *Adult Education*. Its group service assists and provides programme material for the discussion groups formed by organizations and individuals throughout the State. In 1958-59, there were 6,192 enrolments for classes and 2,702 individual enrolments in 244 discussion groups.

A recent development of importance is the extension of the council's activities, including classes and discussion groups, to the prisons, as part of a general plan for penal reform in Victoria.

Through its community arts service, the Council organizes tours, by musicians and by theatrical and other companies, in country towns which otherwise would have no opportunity of seeing such performances. It provides an advisory service to musical societies and co-operates with the National Gallery of Victoria in the organization of travelling art exhibitions.

The council's income is derived mainly from a government grant, but also from student fees and Community Arts Service performances.

(iv) *Queensland.* The Queensland Board of Adult Education was constituted in 1944 and is responsible under the Minister for Education for the provision of adult education facilities throughout the State. Under the executive officer of the Board, the Supervisor, are six district officers, one based in Brisbane and five in large country towns, who are responsible for organizing activities in country areas.

The cost of the programme is borne by the State Government and admission to all courses is free. Activities include lectures, group meetings on a variety of topics, generally short-term but some of which extend over a full year, and film screenings. Library and film services are provided.

In 1959, enrolments for lectures totalled 2,612. Some form of adult education activity was available in more than 200 centres.

(v) *South Australia.* Since 1917, the University of Adelaide, through the Joint Committee for Tutorial Classes, has provided year by year in the metropolitan area a series of tutorial classes, lecture classes and study circles on a wide range of subjects of cultural and current interest, in co-operation with the Workers' Educational Association of South Australia.

In 1957, a Department of Adult Education was established and a full-time Director of Adult Education appointed. A wide range of University extension courses and educational conferences, summer schools and seminars, including a number dealing with subjects at post-graduate level, are organized directly by the University. In 1959, enrolments for tutorial and extension classes totalled 2,584.

The Workers' Educational Association of South Australia, in addition, carries on an independent educational programme of classes, schools, and exhibitions or film festivals.

The State Education Department also arranges an extensive programme of educational activities.

(vi) *Western Australia.* Adult education in Western Australia is organized by the Adult Education Board, established in 1928 under the terms of the statutes of the University of Western Australia. The board has a considerable degree of autonomy. Its executive officer is the Director of Adult Education.

The Board conducts, in the metropolitan areas, classes, refresher courses and short schools, conferences, seminars and public lectures, and maintains a library. Thirty-eight classes were held in 1959 with a total enrolment of 1,268. The Board's country work is mainly operated through a box library scheme for discussion groups, of which there were 76 in 1959. Lecture tours and week-end schools are held, and local adult education is encouraged through semi-autonomous local committees. Metropolitan work and country work are drawn together in an annual summer school.

The Board also operates a community arts service in city and country and arranges screenings of foreign films. Regional drama festivals and music festivals are arranged culminating in the annual Festival of Perth, inaugurated and administered by the Board.

(vii) *Tasmania*. Some form of adult education has existed since the formation in 1913 of a Workers' Educational Association, which worked in conjunction with the University of Tasmania for a number of years, receiving a grant through the university, which had a Director of Tutorial Classes. Later the grant was paid direct to the Association by the Government and the university's tutorial department ceased to exist. In 1948, the Adult Education Act was passed, providing for the formation of an Adult Education Board whose functions are to plan and develop adult education in Tasmania and to assist other bodies actively engaged in adult education.

The executive officer of the board, located at Hobart, is the Director of Adult Education. Activities are organized on a regional basis by organizers based in Hobart, Launceston and three large country centres.

The board organizes classes of ten weeks' duration on a wide range of subjects. In 1959, 314 courses were held with a total enrolment of 3,956. It sponsors special lectures, film screenings and art exhibitions, recitals of music and dramatic performances, in both city and country areas. Its income is derived from a State government grant and from students' fees.

3. **The New Education Fellowship.**—The New Education Fellowship is a world organization of parents, educators, and other citizens interested in the development of new educational practices. It was founded in London in 1915 and spread to Australia at the time of a regional conference held here in 1937. There are now sections in each State. Its Australia-wide journal *New Horizons in Education* is published quarterly.

4. **Australian College of Education.**—An Australian College of Education was formed in 1959. Its aim is to bring together leading members of every field of education for their mutual benefit and the furtherance of education in the Commonwealth.

5. **Migrant Education.**—The Commonwealth government's post-war immigration policy has brought to Australia some thousands of immigrants with little or no knowledge of English. To assist their assimilation into the Australian community, a system of migrant education has been developed to teach them English and to give them information about Australia.

Before arriving in Australia, migrants who do not speak English are given some instruction in English by shipboard education officers.

In Australia, free evening classes are arranged by State Education Departments wherever a group of nine or more migrants in country areas, or twelve or more migrants in city areas, wish to learn English. Should migrants find it impossible to attend classes, they may apply, through State Education Departments, for a free correspondence course in English. In addition, English lessons are broadcast regularly by the Australian Broadcasting Commission. The Commonwealth Office of Education provides technical advice on all aspects of migrant education and is responsible for the preparation of teaching materials.

In October, 1960, 16,623 migrants were enrolled in evening classes and 10,273 were taking correspondence lessons. At the same time, 14,669 were receiving the monthly booklet accompanying the radio lessons.

§ 12. The Commonwealth Literary Fund.

In 1908, the Commonwealth Government, under Alfred Deakin, first established the Commonwealth Literary Fund. The Fund was entirely a compassionate one devoted to literary pensions for aged or infirm authors, for the families of literary men who died in poverty and for writers who were unable for financial reasons to continue their activities.

In 1939, in an endeavour to encourage the development of Australian literature and to foster appreciation of it, the Commonwealth Government greatly enlarged the scope of the Fund. The Fund now awards a limited number of Fellowships each year, assists in the publication of manuscripts of high literary merit, makes annual grants for lectures in Australian literature, and awards pensions to writers who have achieved a nation-wide reputation for their work in the field of creative literature.

The Fellowships are awarded each year to writers who have proved their capacity to do creative work in the field of literature, but who are prevented from exercising their abilities because of financial circumstances. The Fellowship gives a writer the opportunity to devote all his time to creative writing for a period of up to one year. Since 1956, the Fellowships have had a maximum value of £1,000 per annum. The Fund does not seek out people on whom to bestow Fellowships, but considers only those who submit applications.

The Fund also assists in the publication of manuscripts which have outstanding literary merit, but which would not be commercially attractive propositions. This assistance takes the form of a guarantee of assistance to the publisher. The Fund does not itself enter the field of the publisher.

Since 1940, annual grants for lectures in Australian literature have been made to universities. In 1956, the Fund decided to initiate a scheme of lectures to the general public and to schools in both city and country areas, with the co-operation of State Adult Education authorities. Annual grants are now made to the State Adult Education authorities for this purpose.

The Fund also assists two literary magazines of long standing and recognized literary value.

The Fund is administered by a Committee consisting of the Prime Minister (Chairman), the Leader of the Country Party and the Leader of the Opposition in the House of Representatives, assisted by an Advisory Board of five persons with special literary qualifications.

§ 13. Libraries.

1. *General.*—The Munn-Pitt report of 1935 greatly stimulated interest in libraries and librarianship throughout Australia. This is seen in the rapid development of libraries, the passing of legislation in all States to increase library services, and in the establishment in 1937 of the Australian Institute of Librarians to improve the standard of librarianship. This body was reconstituted in 1949 as the Library Association of Australia, and its functions now include the promotion and improvement of libraries and library services. The Association conducts annual examinations for which students are prepared by courses of instruction in all States. Formal library schools exist in the Commonwealth National Library, Canberra, and the Public Libraries at Sydney and Melbourne. In 1960, the first library school to be attached to an Australian University was opened. This is in the University of New South Wales.

2. *Commonwealth.*—(i) *National Library of Australia.* This Library grew directly from the Library of the Commonwealth Parliament established in Melbourne in 1901, the Committee of which soon afterwards announced its intention to develop a library patterned on the Library of Congress at Washington, U.S.A., capable of serving purposes beyond those essential to the Parliament itself, appropriate to a national library and on a national scale. This policy was steadily pursued, so that, in addition to its primary function of serving Parliament, it gradually became a central source of information for the government and its departments and other agencies, and assumed increasing reference and bibliographical responsibilities in relation to scholarship and research in Australia and abroad. It was also influenced by the basic elements of the national library concept of the older countries of Europe; namely, that a national library is the proper place to collect the national literature systematically and to make it known and available for use, and that it is a place to which scholars may turn for what is most significant in the literature of other countries. For these growing extra-Parliamentary activities, the Parliamentary Library Committee, in 1923, adopted the title of Commonwealth National Library, by which name it was increasingly known for the next 37 years.

A committee appointed to examine the future control and functions of the Commonwealth National Library recommended, in 1957*, its establishment as the National Library of Australia, separate from the Parliamentary Library, with wide functions and controlled by a board subject to a Minister; the transfer, as a separate agency to an appropriate department, of its Archives Division, which constituted the Commonwealth's agency for the custody and organization of departmental records of permanent value which need no

* National Library Inquiry Committee. Report . . . with appendices. (Canberra, Commonwealth Government Printer, 1957.)

longer be held within departmental offices; and that the Parliamentary Library be a separate library under separate Parliamentary control. Continuing co-operation, where possible, between the two libraries was also proposed.

Effect was given to these recommendations by the National Library Act, No. 69 of 1960, which created the National Library of Australia as a body corporate under the control of a Council of nine members, of whom one is a Senator elected by the Senate, one a member of the House of Representatives elected by that House, and seven appointed by the Governor-General, and with the following functions:—

on behalf of the Commonwealth—

- (a) to maintain and develop a national collection of library material, including a comprehensive collection relating to Australia and the Australian people;
- (b) to make the national collection available to such persons and institutions in such manner and subject to such conditions as the Council determines with a view to its most advantageous use in the national interest;
- (c) to make available such other services in relation to library matters and material, including bibliographical services, as the Council thinks fit, and in particular for the purposes of—
 - (i) the library of the Parliament;
 - (ii) the Departments and authorities of the Commonwealth; and
 - (iii) the Territories of the Commonwealth; and
- (d) to co-operate in library matters (including the advancement of library science) with authorities or persons, whether in Australia or elsewhere.

The National Library comprehensively collects and preserves Australian books, periodicals, newspapers, government publications, pictures, prints, manuscripts, maps, moving picture films and sound recordings. In this, it has been assisted by the deposit provisions of the Copyright Act 1912–1950, and has also been enriched by the acquisition of such notable collections as the Petherick collection of 16,500 items in 1911, the Cook manuscripts in 1923, the Cumpston collection on Public Health in Australia in 1936, the Mathews Ornithological collection in 1940, the Nan Kivell collection of 16,000 items of Australian and Pacific interest including original paintings, prints, manuscripts and printed material in 1959, and the Ferguson Sociological collection which is still under transfer. A feature of the Library's Australian work is the copying on microfilm, in association with the Public Library of New South Wales, of all important unique material overseas relating to Australia, including over three million pages in the Public Record Office in London.

The Library fulfils its obligation to make Australian publications known, both at home and abroad, through select lists which include *Australian Books* (annual), and *Australian Public Affairs Information Services* (a monthly subject index with an annual cumulation), and by collections of Australian books maintained by it at all posts at which Australia is officially represented abroad. In London and New York, the National Library maintains and staffs Australian Reference Libraries supervised by its own Liaison Officers in those centres.

In the discharge of its wider bibliographical responsibilities, the Library publishes the *Australian National Bibliography* (monthly with an annual cumulation), which lists books, pamphlets, maps, prints, sheet music, government publications, the first issue of each new periodical or newspaper, and moving picture films produced in or relating to Australia. Commonwealth and State official documents, both monographic and serial, are listed in *Australian Government Publications* (annual). The Library has also compiled a union catalogue of serials in the social sciences and humanities in Australian libraries, and in 1961 began publication of the *National Union Catalogue of Current Monographic Accessions*. Preliminary steps have also been taken for a retrospective union catalogue of monographic holdings of Australian libraries.

In 1956, the Australian Bibliographical Centre was established within the National Library to serve as the secretariat of the Australian Advisory Council on Bibliographical Services. The Council, made up of representatives of the National Library, State libraries and library boards, the Commonwealth Scientific and Industrial Research Organization, each of the universities, and the Library Association of Australia, plans the further development and co-ordination of bibliographical services and co-operates with UNESCO and the International Advisory Committee of Bibliography. The Centre organizes bibliographical projects recommended by the Council, and operates as a centre for bibliographical information in Australia and overseas. It has published a *Union List of Newspapers in Australian Libraries*; Part 1: *Newspapers published outside Australia* (1959); and Part 2: *Newspapers published in Australia* (1960).

The Library acts as a central library of documentary and educational films, its film collection containing over 6,000 titles, together with Australian historical films and a great number of film strips. It published *Australian Films: a Catalogue of Scientific, Educational*

and Cultural Films, 1940–58 in 1959 and a first supplement in 1960. A revised edition of the *Catalogue of 16-mm. Films*, which lists all films available for loan, was also published in 1960. Special efforts are being made to discover and preserve samples of early Australian film production.

Through its Extension Division, the Library conducts the Canberra Public Library Service for residents of the Australian Capital Territory, to whom 315,000 books were loaned during 1959–60. It also assists in the provision of similar services in the Northern Territory, the Territory of Papua-New Guinea, and Norfolk Island.

The National Library's collections contain approximately 675,000 volumes, 32,000 pictures, prints, drawings and other graphic materials, one million feet of microfilm, 65,000 maps, and nine million feet of moving picture films. Special features of the book collection are its strong holdings of Australiana, of materials relating to the Pacific area and to East and South-east Asia, the publications of foreign governments and international organizations, and works in the social sciences, particularly in political theory and economics.

(ii) *Patent Office Library.* The Library of the Commonwealth Patent Office, Canberra contains approximately 8,500 books and a wide variety of periodicals and other literature relating to pure and applied science, industrial technology and the industrial property (patent, trade mark, design and copyright) laws and practice of most countries. Patent specifications of inventions are received from the principal countries of the world; present holdings are more than 6,000,000.

(iii) *Commonwealth Scientific and Industrial Research Organization.* The library holdings of the Organization cover the pure and applied sciences. In addition to the Head Office Library in East Melbourne, each of the Divisions and Sections has a specialized collection covering such subjects as food preservation, forest products, chemistry, physics, animal health and fisheries. The collections are particularly strong in the publications of overseas scientific and technical research institutions, with many of which extensive exchange arrangements have been made.

The Head Office library maintains a union catalogue of the holdings of all C.S.I.R.O. libraries, and is responsible for the following publications:—

(a) *Scientific Serials in Australian Libraries.*

(b) *Australian Science Index.* Index of articles published in Australian scientific and technical periodicals.

(c) *C.S.I.R.O. Abstracts*, which includes abstracts of papers published by C.S.I.R.O. officers, C.S.I.R.O. translations, translations available from other Australian organizations and additions to the British Commonwealth Index of Scientific Translations.

The larger libraries in the Organization have photocopying facilities which, while normally for internal use, will provide a service for the public when a publication is not held elsewhere in Australia.

(iv) *The Australian War Memorial Library.* In the War Memorial library are housed the documentary and pictorial records of Australia's fighting services in the 1914–18 and 1939–45 Wars, together with collections covering the war in Korea, 1950–53, and earlier wars in which Australian troops participated—Sudan, 1885, South Africa, 1899–1902 and the Boxer Rebellion in China, 1900–01. Books, periodicals and other records covering contemporary trends and events in the fields of military history and military science are constantly being added.

The printed records section contains approximately 65,000 volumes, a large collection of military maps, newscuttings and newspapers, sound recordings of war leaders, personalities and events, war posters and postage stamps. Many personal collections by distinguished soldiers and historical documents relating to the wars have also been placed in the Memorial's custody for preservation.

Written records comprise correspondence files of headquarters and units of both world wars, and the original war diaries compiled from day to day by each unit during its service.

The collection of official war photographs covering the 1914–18, 1939–45 and Korean Wars numbers over 250,000, and a collection of official motion picture film depicts Australia at war.

Facilities for public research are not yet fully developed, but all requests for information are met where practicable.

(v) *Other Commonwealth Government Libraries.* Most Commonwealth authorities have specialized collections in their own fields, and in addition draw largely on the National Library.

3. States. (Other than University Libraries, *see* para. 4).—(i) *State Public Libraries.* In each of the capital cities there is a well-equipped public library, the libraries in Melbourne and Sydney, especially, comparing very favourably with similar institutions elsewhere in the world. The following statement gives the number of volumes in the public library of each capital city at 30th June, 1959.

STATE PUBLIC LIBRARIES, 30th JUNE, 1959.

City.	Number of Volumes in—			Total.
	Reference Branch.	Ordinary Lending Branch.	Country Lending Branch.	
Canberra(a)	550,000	..	(b)	550,000
Sydney	(c) 570,573	..	(d) 156,813	727,386
Melbourne	659,273	114,399	45,931	819,603
Brisbane	197,095	..	..	197,095
Adelaide	189,675	(e) 64,016	77,745	331,436
Perth	181,712	(f) 147,200	..	328,912
Hobart	71,161	(g) 142,440	116,044	329,645
Darwin(h) .. .. .	..	34,344	..	34,344

(a) Commonwealth National Library, including Parliamentary Section. (b) Books are lent to libraries or students throughout Australia wherever necessary for research work. (c) Includes 165,049 volumes in the Mitchell Library and 13,978 volumes in the Dixon Library. (d) Includes 1,943 volumes in the Model School Library. (e) Includes 19,462 volumes in the Children's Branch and 6,384 volumes in the Youth Lending Branch. (f) Includes the Country Lending Branch and the Children's Branch. (g) Includes 116,963 volumes in the Children's Branch. (h) Northern Territory Library Service. Includes the Country Lending Branch and the Children's Branch.

(ii) *New South Wales.* The Free Library movement in New South Wales, founded for the establishment of a system of public libraries on the basis suggested in the Munn-Pitt Report of 1935, helped to pave the way for the Library Act 1939, which was fully proclaimed as from 1st January, 1944. Of the 165 councils which have adopted the Library Act, 140 have put their adoption into effect. During 1959–60, they spent on their libraries £1,136,384, including £380,325 received in subsidy. There are 184 libraries, of which 47 are in the metropolitan area and 137 in the country. There are also 17 bookmobiles, of which two are in Sydney, six in the suburbs of Sydney and nine in country municipalities and shires. These libraries contain 2,022,277 volumes.

New South Wales departmental libraries are staffed by officers attached for duty from the State Library, which also provides a central cataloguing service for municipal and shire libraries constituted under the 1939 Act. The State Library maintains an adult education section servicing adult education activities for the universities of Sydney and New England and the Workers' Educational Association.

The Country Circulation Department forwards books on loan to State schools, to municipal and shire libraries and to individual students. During 1959–60, 103,909 books were lent to small State schools, and 2,508 to country libraries, while 40,277 reference works were lent to individual country students and to libraries to satisfy special requests.

The State Library, known as the Public Library of New South Wales, includes a general reference department of 401,639 volumes, together with the Shakespeare Tercentenary Memorial Library, and the Mitchell and Dixon Libraries and Galleries which are mainly devoted to Australian and Pacific material. The Mitchell Library, of more than 60,000 volumes and pamphlets and 300 paintings, was bequeathed to the trustees of the Public Library in 1907 by Mr. D. S. Mitchell, together with an endowment of £70,000. There are now 169,000 volumes in the library, in addition to valuable manuscripts, maps and other material. In 1929, Sir William Dixon gave a collection of historical pictures then valued at £25,000. These were subsequently added to, and at his death in 1952 Sir William bequeathed the whole of his collection of books, manuscripts, pictures and other material, together with an endowment of more than £113,000, mainly for the printing or reprinting of historical documents relating to Australia and the Pacific.

The total number of volumes in the State Library now exceeds 750,000, apart from manuscripts, historical pictures and other material.

The maintenance and control of the ordinary lending branch of the Public Library were transferred in 1908 to the Sydney Municipal Council to become the City of Sydney Public Library.

The State Library which has previously been the repository for State archives will transfer this responsibility to an Archives Authority in 1961.

Other important libraries in New South Wales are the Sydney Public Library, 206,978 volumes; Teachers' Colleges, 180,541; Railways Institute, 162,170; Technical Education Branch, 85,239; Government Transport Institute, 41,810; Australian Museum, 32,625; Cooper Library of the New South Wales Public School Teachers' Federation, 20,409; Workers' Educational Association, 12,500; and the Library at the National Herbarium, 10,090 volumes. At 30th June, 1960, the Parliamentary Library contained 133,485 volumes.

(iii) *Victoria*. Until the establishment of the Free Library Service Board in 1947, the only public library facilities available in Victoria (apart from those of the State Public Library and one or two Metropolitan Municipal Libraries) were those offered by about 200 Mechanics' Institute Libraries situated in country areas all over the State. The Board's policy has been to replace these services with modern public libraries controlled by local Municipal Councils and subsidized by the Board. Since the Board's inception, 89 municipalities have established libraries. Of these 20 are in the city, and 69 in the country. An amount of £264,376 was paid to the Councils in library subsidy for the year 1959–60 and £523,619 was expended in municipal library service for the same year. There are 1,512,500 books available to the communities in which libraries are established and combined circulation figures were over 7,400,000 at 30th September, 1960.

A feature of the services provided in the country is the number of co-operative or regional library groups now being developed. These services, of which there are sixteen comprising a total of 59 Councils, consist of groups of Councils which pool their financial resources, book-stocks and trained staff, in order to provide more comprehensive, efficient library facilities.

Approximately 140 Mechanics' Institute Libraries are still in existence in country areas. In 1959–60, 52 of them shared a grant of £2,000.

(iv) *Queensland*. The Library Board of Queensland was established in 1945 under the provisions of the Libraries Act of 1943. Its duty is to attain the fullest co-operation and improvement of the library facilities of the State, with the object of placing such facilities on a sound basis for the benefit and educational improvement of the citizens generally. The Board consists of six members with the State Librarian as *ex officio* member and secretary. A general function of the Board is to ensure that the fullest co-operation exists with the Department of Education, the University of Queensland, local bodies, and other bodies having for their object the encouragement of education, literature and the arts and sciences. A specific function of the board is the control and management of the Public Library of Queensland. Its policy is to build up the main collection of the Library, being as it is the State's reference centre.

The Country Extension Service, which is administered as a department of the Public Library, lends books of non-fiction free to adults and children residing outside the metropolitan area and to municipal libraries in areas of low population.

The Oxley Memorial Library, established in 1923, has been administered as a department of the Public Library since 1946, and the collection has been kept separate. Its object is to collect books, manuscripts, pamphlets and other graphic material relating to the history and literature of Australia, and of Queensland in particular, and to provide facilities for research students in Queensland literature and history.

In 1958, the section of the Libraries Act dealing with the preservation of public records was proclaimed, and in 1959 an Archives Section of the Public Library was instituted and an archivist was appointed.

Since 1948, a course in librarianship has been held annually at the Public Library for the purpose of preparing trainees for the Preliminary Examination of the Library Association of Australia. In 1959, a course covering the compulsory subjects of the Association's registration examination was inaugurated at the Central Technical College, Brisbane.

The holdings of the Public Library of Queensland and its extension services in 1959–60 were:—Main Reference Collection, 119,792 volumes and 5,863 maps and pamphlets; Country Extension Service, 63,746 volumes; Oxley Memorial Library, 19,738 volumes and 8,522 maps, pamphlets and miscellaneous items. Local authorities are empowered by the Libraries Act to establish and conduct library services as a function of local government. The Board encourages local authorities to use these powers. In 1959–60, 63 local authorities were conducting 86 library services and 10 others indicated that they would do so in the near future. The Brisbane City Council has established 12 of these libraries. There were 62 libraries in Queensland free to adults.

To help overcome the problems of large area and sparse population, various local authorities provide library services on a regional basis. By 30th June, 1960, four regional library services had been established:—the South Western (one town and six shires), the Central Western (seven shires), the North Western (six shires), and the Central Highlands (five shires), with head-quarters at Charleville, Barcaldine, Mt. Isa and Emerald respectively. Other regional services are being planned.

During 1959–60, the Board received a grant of £140,940 from consolidated revenue to finance the activities of the Public Library and to pay subsidies to local bodies of fifty per cent. on the purchase of books and the acquisition or improvement of library buildings and equipment. Subsidies were paid to four regional library service boards, 61 local authorities, 33 schools of arts and seven other bodies.

The library of the Parliament of Queensland was established in 1860. At 30th June, 1960, the library held 87,653 books and pamphlets, consisting of official publications and books devoted largely to history, the social sciences, biography and literature.

The Libraries Act Amendment Act, 1949 provides for the Public Library and the Parliamentary Library each to receive a copy of all books, pamphlets, maps and other printed material published in Queensland.

(v) *South Australia.* In the reference department of the Public Library of South Australia, there are about 195,000 volumes, most of which may be borrowed. Over 3,000 periodicals are filed, and the collection of newspapers includes every newspaper printed in South Australia. There are 39,000 volumes in the lending department available to persons living in the metropolitan area, and the country lending service has 100,000 volumes, of which more than half are suitable for children.

The Research Service specializes in scientific and technical inquiries, and supplements the resources of the Public Library by borrowing from other libraries and by obtaining microfilm copies of material not available locally. It has an extensive collection of trade catalogues.

The library of the Parliament of South Australia held approximately 65,000 volumes at 31st December, 1959.

The Institute's Association in 1959 comprised 218 suburban and country libraries with 750,696 volumes.

(vi) *Western Australia.* In 1955, the Library Board of Western Australia was made responsible for all public library services throughout the State to which the State Government contributes funds.

The Board has the following major functions:—

- (a) To encourage local authorities throughout the State to establish public libraries, and to provide as a State subsidy all books and bibliographical services necessary for such libraries when established;
- (b) to administer the State Library;
- (c) to advise the Government on all matters relating to libraries;
- (d) to provide for the training of librarians.

Local public libraries are subsidized on a £1 for £1 basis, the local authority providing accommodation and staffing and the Board all books and related services. The Board provides at least one volume per head of the population. All non-fiction books may be made available at any public library throughout the State on request to the Board. All cataloguing is done by the Board. The first library under this scheme was opened in August, 1954. By 30th June, 1960, 41 libraries had been established.

Prior to the establishment of the Library Board, the government appointed a Country Free Lending Libraries Committee in 1944 to make small grants to local authorities for library purposes. With the more comprehensive service now available through the Library Board, the activities of this Committee are becoming less important and in time it will cease to function altogether, probably in 1962.

The State Library, established in 1887, is the reference division of the Library Service of Western Australia. In addition to providing the normal facilities of a reference library for the metropolitan area, it extends its service throughout the State through local public libraries. It is divided into four subject departments as follows:—

- J. S. Battye Library of West Australian History;
- Library of Business, Science and Technology;
- Library of Social Sciences, Philosophy and Religion;
- Library of Literature and the Arts.

The State bibliographical centre is housed at the State Library and there is also a commercial information centre. The State archives are maintained by the State Library and managed by the staff of the Battye Library. The State Library is fully equipped with microfilm and photocopy apparatus.

The bookstock of the Board at 30th June, 1960, was approximately:—

Lending library services (including books in public libraries): 174,000 volumes;
State Library, 187,000 bound volumes.

The University of Western Australia, through its Adult Education Board, manages the Adult Education Library of some 15,000 volumes of general reading and fiction. Books are sent to country readers by post.

There are some 100 special libraries in government departments and industrial firms.

Union catalogues of periodicals and books received in the libraries of all types in the State are maintained by the Library Board of Western Australia in the bibliographical centre of the State Library.

(vii) *Tasmania*. The Tasmanian Library Board, constituted in 1944, is responsible for administering the State library head-quarters in Hobart, for the extension of library services throughout the State and for the control of State aid for libraries. State aid to municipalities is provided in the form of books of a value equal to the amount of library rates collected. The total cost of library services to the State during 1959–60 amounted to £119,892.

The Tasmanian Library Board provides lending and reference services for the people of Hobart, and operates a reference service for people throughout the State. In addition, it conducts screenings of documentary films, recitals of recorded music, lectures, library weeks in country centres, puppetry demonstrations, etc.

The Parliamentary Library works in close collaboration with the State Library, which provides a reference officer to serve members during session. It catalogues all new books added to the library and supplies recreational reading.

4. *University Libraries*.—The libraries of the Australian universities provide material not only for the education of graduates and undergraduates, but also for research workers and practical investigators all over the continent. Much of the material they contain is not available elsewhere, for although in most cases smaller, they are in many directions more highly specialized than the public libraries. They lend to one another and to State and private institutions as well as to individual investigators. Each of them is governed by a librarian, who is responsible as a rule to an executive sub-committee and a committee which is practically co-extensive with the professional staff. In size, the library of the University of Sydney is the third library in Australia, and the libraries of the Universities of Melbourne and Adelaide are respectively eighth and ninth. The following table shows the sizes, accessions during the year, and expenditure of the Australian university libraries; borrowing statistics are not shown, as they differ too widely to be comparable without considerable explanation.

UNIVERSITY LIBRARIES, 1959.

University or College.	Volumes.	Accessions during year.	Expenditure.
			£
Australian National University	146,875	8,215	58,361
Canberra University College(a)	62,370	10,310	44,926
Sydney(a)	567,401	99,145	152,910
New South Wales	110,123	15,775	96,344
New England(a)	88,944	14,999	48,368
Melbourne(a)	270,003	12,913	110,257
Queensland	197,175	19,094	87,659
Adelaide	244,266	11,397	82,721
Western Australia	171,839	12,806	54,699
Tasmania(a)	117,000	8,039	45,955
Total	1,975,996	212,693	782,200

(a) Includes pamphlets.

The library of the Australian National University consists of two main collections; the former Australian National University Library, founded in 1948, serves primarily the Institute of Advanced Studies, and the former Canberra University College library, founded in 1938, serves primarily the School of General Studies. At the end of 1960, the stock comprised about 235,000 volumes including some 45,000 volumes in oriental languages. The collection serving the Institute of Advanced Studies specializes in the fields of the physical and medical sciences, excluding clinical works, and in the social sciences it aims to provide a good working collection while giving consideration to the holdings of the Commonwealth National Library. It possesses significant collections in anthropology, linguistics, mathematics and mathematical statistics. The collection serving the School of General Studies has been built up to meet the needs primarily of undergraduates in the Faculties of Arts, Commerce, Law and Science, and will develop strength as a research collection in the humanities.

The library of the University of Sydney consists of the central collection which is known as the Fisher Library, the Law Library, the Medical Branch Library, the Burkhitt Library for preclinical medicine, and some fifty-two departmental libraries. The University Library, together with departmental libraries, held 567,401 volumes in December, 1959. Other libraries in the University grounds contain a further 250,000.

The first books were acquired in 1851, and shortly afterwards the library of Sydney College was added. The notable collection of Nicholas D. Stenhouse was acquired in 1878 as the gift of Thomas Walker. In 1885, Thomas Fisher bequeathed the sum of £30,000, the income from which is used as a book fund. Perhaps the finest collection in extent and importance which has been given to the University is that of Sir Charles Nicholson. There have been numerous other benefactions, among which may be mentioned the library of Sir Francis Anderson, the W. H. Deane collection of books and manuscripts and the Dalley-Scarlett music library.

The Libraries of the University of New South Wales consist of the Central Library on the Kensington campus, a Medical Library at present at Prince Henry Hospital, and the Newcastle University College Library. The Broadway campus is serviced by the Sydney Technical College Library, where 29,000 books from the University's Library are placed. Service to University Divisions at other centres is also provided by the Technical Education Department. In December, 1960, the university had 151,970 volumes in its Libraries or located in Technical Education Department Libraries.

The University of New England library was founded in 1938 and bears the name of its first benefactor, Sir William Dixon. At the end of 1960, it contained 85,000 volumes on the open shelves and subscribed to 1,550 current periodicals. The library is at present housed in temporary quarters with seating for 100 readers. The bindery and compactus shelving for newspapers and local records are housed in the two basement areas. Microfilm and microcard readers are available. The permanent library building, which will hold 278,000 volumes and 190 readers, as well as the bindery and photographic departments, is expected to be ready for occupation during 1961.

Early in 1854, the University of Melbourne made its first allocation for books, but the library was housed in temporary quarters until 1959. The W. L. Baillieu Trust made available the first instalments of a £100,000 gift for building purposes, which have been followed by subsequent gifts and substantial grants from the Commonwealth and State governments, and a new building costing £700,000 was occupied at the beginning of 1959, the first in the University to be designed specifically for library purposes. It provides space for 1,200 readers and 300,000 books. During the academic year, admissions of readers to the building average nearly 8,000 a day. Most of the books are accessible on open shelves, and though the library is intended primarily for reference purposes, borrowing, except of textbooks and certain valuable volumes, is made as easy as possible. The resources of the library are also extensively used on inter-library loan by industries and other organizations throughout Australia. The University library, including 13 branch libraries in various departments, is administered from the centrally situated Baillieu Library, and at the end of 1960 it contained approximately 291,000 books and pamphlets. The large medical branch library is specially rich in periodicals.

The library of the University of Queensland was founded in 1911. The main library is in its own building in the University at St. Lucia, and there are a considerable number of departmental libraries. All books are in open access and most are available for borrowing. At 1st November, 1960, the library contained more than 218,000 volumes. The main library includes a special collection of material relating to the history, development and culture of the countries surrounding the Pacific Ocean.

The Adelaide University library bears the title of its original benefactor, Robert Barr Smith, who, with members of his family in and after 1892, gave the university over £50,000 for the library. Although readers have access to all parts of the library, the book collection

is in two divisions, a collection of some 25,000 of the most frequently used books being kept in the main reading room and the remainder, consisting of older or more specialized books, being shelved on the four levels of the extensions. Bound periodicals are shelved in steel stacks under the main reading room. Borrowing facilities are available to all matriculated students, to country students and to graduates. There are branch libraries for medicine, law and music. The British Medical Association (S.A. Branch) and the Australian Physiotherapy Association (S.A. Branch) make annual contributions towards the maintenance of the medical library in return for borrowing privileges for their members. The Waite Agricultural Research Institute has a separately administered library of publications in agriculture.

In the University of Western Australia, the first permanent library staff was not appointed until 1927. Provision for a permanent library was not possible when the university moved to its present site, and space and facilities have consequently been inadequate. In 1960, a temporary annexe capable of holding some 200 readers and 30,000 volumes was provided. The first stage of the new library building is included in the buildings approved by the Australian Universities Commission for completion in the 1961–63 triennium. The University Library developed very slowly in the early years, but recently has been adding about 12,000 volumes a year to its stock and making good earlier deficiencies. In addition to the Central Library, there are a number of departmental libraries of which the more important are engineering, agriculture, pre-clinical and law. There is also a medical library, in accommodation provided by the Royal Perth Hospital, for use of the medical school.

Although the library of the University of Tasmania was founded in 1893, a full-time librarian was appointed for the first time at the end of 1945. Since 1954, a Hobart Union List of Serials has been housed in and kept up to date by the university library, thus providing a major reference tool for all bibliographic inquiries in the State. At the end of 1960, the library contained approximately 124,000 volumes and received 2,200 periodicals currently.

The Canberra University College library was established in 1938. In 1959, it contained 60,000 volumes, which are on open shelves.

5. **Children's Libraries and School Libraries.**—(i) *New South Wales.* Children's libraries are being developed as departments of municipal and shire libraries. The Education Department maintains a school library service for the fostering of State school libraries, which are maintained partly by parents' and citizens' associations and partly by departmental subsidy. Secondary and central schools have trained teacher librarians.

(ii) *Victoria.* Under the auspices of the Free Library Service Board, 89 municipal children's libraries have been, or are being, established as part of the library services provided by the councils concerned. All these libraries provide comprehensive modern children's book collections which are constantly being augmented. An annual grant of £5,000, which is additional to the ordinary annual municipal library grant, is provided to assist these libraries. In addition, seven independently controlled children's libraries shared in this grant in 1959.

The Education Department is making provision for the building of library rooms in new schools. Where accommodation is available in existing schools, library furniture is provided free of cost to the schools and the government subsidises the purchase of books. In June, 1959, 330 schools had central libraries.

A scheme of circulating libraries for small schools, particularly in remote areas, has been operating for some years. Three hundred and twenty schools benefited from this scheme in 1959.

The Department has a Library Service Officer with a small staff to advise and assist schools in the establishment and organization of libraries. A one-year course for the training of teacher-librarians was established at Melbourne Teachers' College in 1955. Approximately 20 teachers are trained each year.

(iii) *Queensland.* The Library Board of Queensland stresses to local bodies the importance of providing adequate library services for children. There are in Queensland 81 libraries free to children, of which 11 are conducted by the Brisbane City Council. The children's libraries at Rockhampton, Toowoomba, and Townsville are particularly active. Country children who are not catered for locally may borrow from the country extension service which possesses a separate children's collection. The purchase of books in State school libraries in Queensland is financed by school committees and parents' associations, with a subsidy from the Department of Education on a £1 for £1 basis. Trainees at the Teachers Training College are instructed in school library organization and management.

(iv) *South Australia.* A children's library of 25,000 volumes is used by school classes and individual children living in the metropolitan area. Except for works of reference, all books are available for loan. In August, 1957, a youth lending service was opened for young people from 13 to 18 years of age. It has a stock of 8,700 volumes.

(v) *Western Australia.* The State Education Department makes library subsidies and grants to government schools.

All high schools are provided with a library room and furniture, and trained teacher-librarians are appointed to them. Building plans do not provide for primary school libraries, but a number of the schools have set up central libraries when rooms have become available.

One-teacher and two-teacher schools are served by the Charles Hadley travelling library and the small schools fixed library services. Under the fixed library scheme, permanent libraries of reference books and encyclopaedias were placed in each such school. Books to the value of £15 were added to each of these libraries annually from 1948 to 1954. Since then, the grant for these books is made at three year intervals. The Hadley library provides recreational reading and operates 340 boxes which are exchanged every three months. The government grants £500 per annum for this service, and the participating schools contribute the commission received from the Commonwealth Savings Bank—about £140.

Children in isolated areas who are unable to attend school are catered for by books sent out by the State Correspondence School's Library. The children are kept in touch with the library by means of radio talks and leaflets issued periodically.

(vi) *Tasmania.* The Lady Clark Memorial Children's Libraries, at the State Library, Hobart, aim to serve all children in Tasmania with books. At 30th June, 1960, 208 children's libraries and depots had been established.

Practically all State secondary schools in Tasmania have libraries, with full-time librarians in four of them. A schools' library service gives a book service to schools and assists schools wishing to set up their own libraries. In 1959, the number of schools receiving service was 108 and the number of books issued was 12,437.

6. *Special Libraries.*—Before the 1939–45 War, the number of special libraries, apart from those maintained by government departments, was small, but during recent years many manufacturing, commercial, research and other firms, as well as statutory bodies, have found it necessary to establish special libraries to serve their staff. These libraries, which are most numerous in Sydney and Melbourne, are being administered increasingly by trained librarians.

7. *Microfilms.*—The following libraries supply microfilm or photostat copies of material usually at a small charge (the letter "P" signifies photostat supplied and "M" microfilm supplied):—*Australian Capital Territory*—Australian War Memorial (P), National Library of Australia (PM), C.S.I.R.O. (M), Australian National University (M), Patent Office (P); *New South Wales*—Metropolitan Water, Sewerage and Drainage Board (P), Public Library of New South Wales (M), Standards Association of Australia (P), School of Public Health and Tropical Medicine (M), Fisher Library, University of Sydney (PM); *Victoria*—Commonwealth Serum Laboratories (P), Technical Information Section, Munitions Supply Laboratories (PM), Public Library of Victoria (M), Standards Association of Australia (Melbourne Branch) (P), University of Melbourne (PM), C.S.I.R.O. (M); *Queensland*—Public Library (P); *South Australia*—Public Library of South Australia (PM), University of Adelaide (PM), Waite Agricultural Research Institute (P); *Western Australia*—State Library (PM); *Tasmania*—University of Tasmania (PM).

§ 14. Public Museums.

(i) *New South Wales.* The Australian Museum in Sydney, founded in 1836, is the oldest in Australia. In addition to possessing fine collections of Australian fauna, the museum contains valuable anthropological and mineral collections. The number of visitors to the institution during 1958–59 was 323,600 and the average attendance 806 on week-days and 1,374 on Sundays. The expenditure for 1958–59 amounted to £119,734. A valuable library containing 33,000 volumes is attached to the museum. Courses of evening popular lectures are delivered and lecturers also visit distant suburbs and country districts, and afternoon lectures for school children are provided; 10,650 children attended during 1958–59. Representative collections illustrative of the natural wealth of the country are to be found in the Agricultural and Forestry Museum and the Mining and Geological Museum. The latter institution prepares collections of specimens to be used as teaching aids to country schools. The

"Nicholson" Museum of Antiquities, the "Macleay" Museum of Natural History and the Museum of Normal and Morbid Anatomy attached to the University of Sydney, and the National Herbarium and Botanical Museum at the Sydney Botanic Gardens, are all accessible to the public.

There is a Museum of Applied Arts and Sciences in Sydney with branches in three country centres. Valuable research work is being performed by the scientific staff in connexion with oil and other products of the eucalyptus and the gums, kinos, tanning materials, and other economic products of native vegetation generally. Expenditure during the year 1958-59 was £58,771.

(ii) *Victoria*. The National Museum at Melbourne, devoted to natural history, geology and ethnology, is in the eastern section of the public library building. The Museum of Applied Science, also housed under the same roof, contained at 30th June, 1959, 24,000 exhibits which covered applied and economic aspects of all branches of science. There is a fine Museum of Botany and Plant Products in the Melbourne botanic gardens. In addition to the large collection in the geological museum attached to the Mines Department in Melbourne, well-equipped museums of mining and geological specimens are established in connexion with the School of Mines in the chief mining districts.

(iii) *Queensland*. The Queensland Museum, founded in 1855, is the State museum of natural science. It is a Government sub-department and is maintained by the State. The collections comprise extensive exhibited and reference series, mainly in the fields of zoology, geology, and ethnology, and some mechanical and historical material is held with a view to future museum development. Lessons supported by film displays are arranged for the public, and an annual refresher course in natural science is conducted for teachers. The museum is now the recognized State depository for valuable material in natural science, and the collections in general are constantly being increased. In addition, the Museum contains the outstanding library of the State in the fields of zoology, geology and anthropology.

(iv) *South Australia*. The South Australian Museum has considerable collections of most branches of natural history. In 1959-60, there were at least 200,000 visitors and expenditure was £63,750.

(v) *Western Australia*. The Western Australian Museum was established in 1895. It is under the statutory management of a board of five members, appointed by the State Government, but operates under its own director and staff. It is primarily a museum of natural history, with principal research interests in the fauna of Western Australia and the ethnology of the Western Australian aboriginal, and has extensive geological collections and also historical and technological exhibits.

The Education Department of Western Australia has three teachers attached to the museum. One gives instruction to visiting classes from schools in the metropolitan area, and 2,735 children attended these classes during 1959. The others act in an advisory capacity to teachers in country schools.

(vi) *Tasmania*. There are two museums in Tasmania—the Tasmanian Museum at Hobart, and the Queen Victoria Museum and Art Gallery at Launceston—both of which contain valuable collections of botanical, mineral and miscellaneous products. The museum received aid from the Government during 1959-60 to the extent of £29,000.

§ 15. Public Art Galleries.

(i) *New South Wales*. The Art Gallery of New South Wales originated in the Academy of Art founded in 1871. At the end of 1959, its contents comprised 1,452 oil paintings, 948 water colours, 2,509 prints and drawings, 144 sculptures and casts, and 1,284 ceramics, works in metal and miscellaneous. Since 1895, loan collections of pictures have been exhibited regularly in important country towns. The expenditure for 1959-60 was £52,427.

(ii) *Victoria*. The National Gallery at Melbourne at 30th June, 1959, contained 1,241 oil paintings, 7,792 objects of statuary, bronzes, ceramics, etc., and 8,218 water colour drawings, engravings and photographs. The gallery is situated in the same building as the museum and public library. Expenditure by the National Gallery in 1958-59 was £90,755, including £23,253 for purchases of works of art. Several bequests were made to the institution by private citizens. There are provincial art galleries at Ballarat, Bendigo, Castlemaine, Geelong, Mildura, Shepparton, St. Arnaud and Warrnambool, to which, periodically, pictures are sent on loan from the National Gallery.

(iii) *Queensland.* The Queensland Art Gallery, maintained by the State Government, was established in 1895.

During 1959, the Government passed a new Queensland Art Gallery Act re-organizing the gallery, appointing a new Board of Trustees and granting a site for the building of a new art gallery.

The collection has been enriched by numerous bequests. In 1959, an anonymous gift of £126,000 was devoted to the purchase of an important collection of modern French paintings. The collection comprises 474 oils, 636 watercolours and drawings, 67 sculptures and 178 art objects.

(iv) *South Australia.* The National Gallery at Adelaide originated in an exhibition of pictures in the public library building in 1881. Many bequests made by private citizens have materially assisted its growth. At 30th June, 1960, there were in the gallery 1,875 paintings in oil, water colours and pastels, 133 items of statuary and large collections of drawings, prints, furniture, ceramics and coins. The expenditure during 1959-60 was £37,112.

(v) *Western Australia.* The Western Australian Art Gallery was established in 1895. Although under the statutory management of a board of five members, appointed by the State Government, it functions under its own director and staff. At 30th June, 1960, the collection included 362 oil paintings, 202 water colours, 10 pastels, 792 drawings, 552 prints, 1,021 reproductions, 9 miniatures and 24 pieces of sculpture. International and interstate exhibitions are frequently held, and travelling exhibitions are sent to country centres.

(vi) *Tasmania.* In Tasmania, the Art Gallery at Hobart was opened in 1887. In June, 1960, it contained 212 oil paintings, 186 water colours, 127 black and white, three statuary and 146 etchings, engravings, etc. Expenditure in 1959-60 was £25,095.

The Art Gallery at Launceston was opened in 1891. In June, 1959 there were on view 233 oil paintings, 337 water colours, 87 black and white, and 211 miscellaneous exhibits. Expenditure in 1959-60 was £16,019.

§ 16. Scientific Societies.

1. *Royal Societies.*—The following table contains the latest available statistical information regarding the Royal Society in each State, the headquarters of which are in the capital cities.

ROYAL SOCIETIES.

Particulars.	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.	Canberra.
Year ended—	Feb. 1960.	Dec. 1960.	Dec. 1960.	Sept. 1960.	Dec. 1959.	Dec. 1960.	Dec. 1959.
Year of charter	1866	1859	1884	1880	1913	1844	1930
Number of members	341	377	269	193	210	560	195
Volumes of transactions issued	94	98	71	83	42	94	..
Number of books in library	41,000	20,000	56,809	20,000	6,000	32,680	..
Societies on exchange list	384	320	288	259	220	316	..
Income	£ 3,686	3,396	864	2,728	a 1,228	1,830	158
Expenditure	£ 3,797	3,987	620	2,692	a 1,172	1,800	115

(a) 30th June, 1960.

2. *Australian Academy of Science.*—The Australian Academy of Science was founded in 1954 to promote scientific knowledge, to maintain standards of scientific endeavour and achievement in the natural sciences in Australia, and to represent Australian science at national and international level. These objectives it shares with the Royal Society of London and with the national academies of science of most other countries.

Prior to 1954, Australian science had been represented in international activities by the Australian National Research Council.

During the Royal Visit, Her Majesty Queen Elizabeth II was graciously pleased to present her Charter to the provisional Council of the Academy at a simple ceremony at Government House, Canberra, on 16th February, 1954, thus following the precedent of King Charles II who presented his Charter to the Royal Society of London in 1662.

Six Fellows, distinguished for their achievements in the natural sciences, are elected annually. The total Fellowship in 1960 was 91.

The affairs of the Academy are managed by an elected Council consisting of the President, the Treasurer, two Secretaries (one representing the Physical and the other the Biological Sciences) and eight other members. The Assistant Secretary (who must not be a Fellow) is the Academy's salaried administrative officer.

The headquarters of the Academy is situated in Canberra. This building houses the offices of the Academy and provides a conference centre of international standard for scientific and other meetings.

3. **The Australian and New Zealand Association for the Advancement of Science.**—This association was founded in 1887. Its headquarters are at Science House, Gloucester Street, Sydney, and congresses are held at intervals of approximately eighteen months in the various States and in the Dominion of New Zealand. The latest congress was held in Brisbane in May, 1961.

4. **Other Scientific Bodies.**—A number of scientific bodies have been set up by the Commonwealth Government. These are the Commonwealth Scientific and Industrial Research Organization, the Commonwealth Observatory (which has now been incorporated in the Australian National University), the Ionospheric Prediction Service, and the Atomic Energy Commission. Particulars concerning these bodies may be found in Chapter XXX.—Miscellaneous.

The Linnean Society of New South Wales, with headquarters in Sydney, was founded in 1874. Sir William Macleay, who died in 1891, during his lifetime and by his will endowed the Society to the amount of £67,000, which has been increased by investment to approximately £100,000. The Society offers annually to graduates of the University of Sydney who are members of the Society and resident in New South Wales, research fellowships (Linnean Macleay Fellowships) in various branches of natural history. One fellowship was awarded for 1961. The library comprises some 19,000 volumes. Eighty-five volumes of Proceedings have been issued, and the Society exchanges with about 300 kindred institutions and universities throughout the world. The membership at the end of 1960 was 270.

The British Astronomical Society has a branch in Sydney, and in each of the States there is a branch of the British Medical Association.

In addition to the societies enumerated above, there are various others in each State devoted to branches of scientific investigation.

§ 17. State Government Expenditure on Education, Science and Art.

The expenditure by each State Government on education, science and art during the year 1958–59 is shown in the following table. Owing to the details not being available in all States, the figures exclude officers' pensions and superannuation, pay-roll tax, and interest and sinking fund on capital expended on buildings. The cost of the medical and dental inspection of school children is also excluded, as this service is more appropriately classified under public health.

STATE EXPENDITURE ON EDUCATION, SCIENCE AND ART, 1958-59.
(£'000.)

State.	Expenditure from—				Receipts.	Net Expenditure.
	Revenue.	Loan.	Other Funds.	Total.		
New South Wales	46,032	11,543	..	57,575	1,030	56,545
Victoria	31,900	9,112	..	41,012	389	40,623
Queensland	14,270	3,167	829	18,266	598	17,668
South Australia	11,672	3,498	..	15,170	1,060	14,110
Western Australia	9,415	1,782	35	11,232	185	11,047
Tasmania	4,758	1,998	29	6,785	652	6,133
Total	118,047	31,100	893	150,040	3,914	146,126

CHAPTER XVI.

PUBLIC JUSTICE.

NOTE.—In interpreting statistics of public justice, it should be realized that a number of factors affect comparability from State to State and from year to year, e.g.:

- (a) Differences in the jurisdiction of courts;
- (b) Changes in the law in particular States and differences in the laws between States;
- (c) The methods of compilation of the figures (e.g. *see* footnotes to the tables dealing with convictions);
- (d) The attitude to laws such as those connected with liquor, vagrancy, gaming, and traffic offences;
- (e) The strength and distribution of the police force;
- (f) The proportion of various types of crimes reported and solved.

§ 1. The Australian Legal System.

1. **General.**—Australia, being a federation, has two systems of courts—State and federal. The only federal courts are the High Court of Australia, the Federal Court of Bankruptcy and the Commonwealth Industrial Court. Otherwise, federal jurisdiction is vested in the State courts.

Thus, while the High Court has extensive original jurisdiction, most civil cases involving federal jurisdiction are heard in the State courts. Almost all criminal matters involving federal jurisdiction are tried in State courts. In the tables in this chapter which give statistics of proceedings in State courts, no distinction has been drawn between State cases proper and cases where State courts are exercising federal jurisdiction.

2. **State Courts.**—(i) *Civil jurisdiction.* Lower courts (which term includes, for the purposes of this chapter, Magistrates' Courts, Courts of Petty Sessions, and Small Debts Courts) are presided over by a stipendiary or police magistrate. In some limited instances, justices of the peace may exercise the jurisdiction of the court. The powers of the magistrates in the various States and Territories are set out in § 2 below. In most cases, unless the amount involved is very small, appeal may be made to a higher court against a magistrate's decision. In any case, the Supreme Court has a supervisory power, by means of prerogative writs, to examine whether a lower court has properly exercised its jurisdiction.

In the higher courts (which term includes, for the purposes of this chapter, District Courts, County Courts, and the Supreme Courts), actions are usually tried by a single judge, sitting with or without a jury, from whose judgment appeal lies to the bench of the Supreme Court. In certain cases, the appeal can be carried to the High Court of Australia. Appeals to the Privy Council are discussed below.

(ii) *Criminal jurisdiction.* Criminal courts are of two kinds, namely, courts of summary jurisdiction, usually called Courts of Petty Sessions, which may deal summarily with minor offences, and higher courts, known as Courts of Sessions, Quarter Sessions or General Sessions, and the Supreme Court, which hear indictable offences. A court of summary jurisdiction consists of a stipendiary or police magistrate, or two or more justices of the peace; a higher court consists of a judge or chairman, sitting with a jury. The jury finds as to the facts of the case and the judge determines the applicable law.

In the case of other than minor offences, a preliminary hearing is held before a stipendiary magistrate or justice of the peace for the purpose of determining whether a *prima facie* case has been made out. If the magistrate or justice of the peace finds that there is a case to answer, the person charged is committed for trial at a higher court. A magistrate or justice of the peace has power to release on bail.

There is an appeal to a higher court from the decision of a court of summary jurisdiction hearing a minor offence, and an appeal from a higher court to the full bench of the Supreme Court, or Court of Criminal Appeal. A further appeal may, with leave, be brought to the High Court of Australia.

3. Federal Courts.—The judicial power of the Commonwealth is vested in the High Court of Australia (the Federal Supreme Court), in the Federal courts created by Parliament (the Federal Court of Bankruptcy and the Commonwealth Industrial Court), and in the State courts invested by Parliament with Federal jurisdiction, both civil and criminal. Further particulars regarding the judicial power of the Commonwealth will be found in Chapter III. (§§ 71–73) of the Commonwealth Constitution (*see* p. 16 of this Year Book).

Particulars concerning the Federal Court of Bankruptcy and the High Court of Australia will be found in §§ 4c and 5, respectively, of this chapter. Information regarding the Commonwealth Industrial Court, which was established under the Conciliation and Arbitration Act 1904–1960, will be found in Chapter XII.—Labour, Wages and Prices (p. 423).

4. Appeal to the Privy Council.—There is an appeal, by special leave of the Privy Council, from the High Court to the Privy Council. In certain important types of constitutional disputes, involving questions of the powers of the Commonwealth *vis-à-vis* the States, a certificate of the High Court in effect granting leave to appeal is necessary. There is also an appeal from the State Supreme Courts direct to the Privy Council.

§ 2. Lower (Magistrates') Courts.

A. POWERS OF THE MAGISTRATES.

1. New South Wales.—There is no general limit to the powers of the magistrates with regard to offences punishable summarily, their authority depending in each case on the statute which creates the offence and gives them jurisdiction. Except in the case of a very few statutes, and excluding cumulative sentences, the power of sentence is limited to twelve months. Imprisonment in default of fine is regulated by a scale limiting the maximum period according to the sum ordered to be paid, but in no case exceeding twelve months. Actions for debt and damage within certain limits also come within magisterial jurisdiction. In cases of liquidated debts, and damages whether liquidated or unliquidated, the amount is limited to £50 before a court constituted by a stipendiary magistrate. Magistrates have power to entertain claims of up to £250 under the Money Lenders and Infants Loans Act, 1941, as amended. The amount in actions of debt before two or more justices of the peace is limited to £30 and in actions of damage it is limited to £10, but may extend to £30 with the consent of the defendant. Outside the Metropolitan Area of Sydney and certain other prescribed districts, one justice of the peace may hear cases of debt, liquidated or unliquidated, or damage up to £5 or to £30 by consent of parties.

2. Victoria.—The civil jurisdiction of magistrates is restricted to what may be designated ordinary debts, damages for assault, restitution of goods, etc., where the amount in dispute does not exceed £100, and to actions arising out of torts or contracts to the extent of £250. No definite limit is fixed to the powers of the magistrates on the criminal side, and for some offences, sentences of up to two years' imprisonment may be imposed. The proportion of long sentences is, however, comparatively small.

3. Queensland.—Generally speaking, the maximum term of imprisonment which justices can impose is six months, but in certain exceptional cases, such as offences against sections 233, 344 and 445 of the Criminal Code (betting houses, aggravated assaults, and unlawfully using animals), sentences of twelve months may be imposed.

There is provision for applying cumulative sentences, but in practice not more than one sentence is generally made cumulative on a previous sentence.

4. **South Australia.**—The power of special magistrates to impose fines and imprisonment is defined by the special Act creating the offence and conferring jurisdiction. In the case of minor indictable offences which are tried summarily, a maximum penalty of £100 fine or two years' imprisonment is fixed by the Justices Act 1921–1960. Magistrates also have power to hear certain civil actions in which the amount claimed is less than £1,250.

5. **Western Australia.**—The powers of magistrates and justices with regard to offences which are tried summarily are governed by the Act creating the offence and giving them jurisdiction. Imprisonment in default of payment of a fine is regulated by a scale limiting the period according to the amount of the fine but not to exceed six months.

The civil jurisdiction of Local Courts is restricted in general to £500. By consent of the parties, any action that might be brought in the Supreme Court may be dealt with in a Local Court. Justices may act in the case of illness or absence of the magistrate.

Magistrates are coroners and justices may be appointed as acting coroners.

Magistrates have appellate jurisdiction under some statutes and in country districts act as Chairmen of the Courts of Session. They may be appointed as Commissioners of the Supreme Court. On the goldfields, the magistrate is also the warden.

6. **Tasmania.**—Magistrates are empowered to hear and determine in Courts of Petty Sessions all offences when an enactment expressly or by implication provides that the matter is to be determined summarily, or by or before justices, or that any offence is to be punishable upon summary conviction. In addition, stealing and analogous crimes may be heard and determined summarily on the election of the person charged, when the amount involved does not exceed £100.

No general limit is fixed in respect of sentences, the statute creating the offence almost invariably laying down the penalty. Where this is not the case, the Contravention of Statutes Act 1889 provides that a fine of £50 may be imposed. Sentences of imprisonment which justices may impose vary with the nature of the offence, with a maximum of two years. The aggregate of terms of cumulative sentences may not exceed two years.

The civil jurisdiction of magistrates is divided into two categories. A Commissioner of the Court of Requests, provided he is a legal practitioner, may hear actions for the recovery of debts and damages not exceeding £250. As Commissioners are invariably police magistrates, this jurisdiction is State-wide. Courts of General Sessions, constituted by at least two justices, exercise similar powers, but the jurisdiction cannot exceed £50. Only one court, that at Currie, King Island, has the maximum jurisdiction, the others being limited to £30.

7. **Northern Territory.**—Magistrates constituting courts of summary jurisdiction try offences punishable summarily. The punishment that may be imposed depends on the law creating the offence. Where there is no magistrate available the offence may be tried by two or more justices of the peace or, if all parties consent, by one justice. Proceedings for committal on indictable offences may be heard by either a magistrate or a justice of the peace. Certain minor indictable offences may be tried summarily by a magistrate or two justices of the peace, who may impose a fine up to £100 or two years' imprisonment.

A stipendiary magistrate constituting a local court has a civil jurisdiction to hear and determine claims for not more than £1,000. A local court constituted by two justices of the peace has a civil jurisdiction to hear claims up to £50.

8. **Australian Capital Territory.**—Magistrates have jurisdiction to try an offence which is punishable summarily and also where a person is made liable to a penalty or punishment and no other provision is made for trial. The punishment depends upon the statute which creates the offence. Certain indictable offences of a less serious nature may be tried summarily by a magistrate, who may impose a fine of £50 or imprisonment for one year. Magistrates also hear proceedings for committal on indictable offences. The stipendiary magistrate is also the coroner. In civil proceedings, magistrates try actions for amounts up to £200. Justices of the peace have no judicial functions.

B. CRIMINAL PROCEEDINGS.

1. **Cases Tried.**—The total numbers of cases tried at magistrates' courts in each State for the years 1955 to 1959 are shown in the following table:—

CASES TRIED AT MAGISTRATES' COURTS.

State or Territory.	1955.	1956.	1957.	1958.	1959.
New South Wales(a) ..	254,487	271,172	307,824	323,097	331,195
Victoria	149,296	175,899	224,015	270,017	287,622
Queensland(b) ..	49,372	47,072	53,611	(a) 62,468	(a) 65,773
South Australia(b) ..	32,593	31,799	34,399	36,305	38,003
Western Australia(a) ..	67,739	62,753	59,205	49,945	50,696
Tasmania	19,672	(a) 19,274	(a) 19,120	(a) 20,009	(a) 21,355
Northern Territory ..	(b) 2,105	(b) 2,779	(b) 2,615	3,103	3,617
Australian Capital Territory	1,480	1,564	1,875	2,197	2,539
Australia	576,744	612,312	702,664	767,141	800,800

(a) In addition, the following numbers of minor traffic offences were settled by payment of fines without court appearance:—New South Wales: 1955—61,179; 1956—163,921; 1957—237,811; 1958—315,058; 1959—321,157. Queensland: 1958—18,803; 1959—22,701. Western Australia: 1955—9,811; 1956—32,130; 1957—31,405; 1958—36,999; 1959—44,973. Tasmania: 1956—7,706; 1957—9,960; 1958—15,022; 1959—18,554. (b) Twelve months ended 30th June of year shown.

2. **Convictions at Magistrates' Courts.**—Of the persons who appeared before Magistrates' Courts in 1959, the following table shows the number who were convicted in each State.

CONVICTIONS AT MAGISTRATES' COURTS, 1959.

Class of Offence.	N.S.W.	Vic.	Qld. (a)(b)	S.A. (a)	W.A.	Tas.	N.T.	A.C.T.	Aust.
Against the Person ..	3,485	1,487	434	349	394	312	91	77	6,629
Against Property ..	26,884	10,737	3,983	2,203	5,025	1,294	178	239	50,543
Forgery and Offences against the Currency ..	400	36	5	2	4	28	28	68	571
Against Good Order ..	100,656	38,621	29,686	5,579	7,385	1,456	1,573	433	185,389
Other	172,079	214,333	26,104	26,070	34,771	16,004	1,342	970	491,673
Total	303,504	265,214	60,212	34,203	47,579	19,094	3,212	1,787	734,805

(a) Year ended 30th June. (b) A person convicted on several counts at the one hearing is included only once, but if a person has been convicted at different hearings during the year, whether for the same or for a different type of offence, the results of all hearings are recorded separately.

The following table shows the number of convictions in each year from 1955 to 1959:—

CONVICTIONS AT MAGISTRATES' COURTS.

State or Territory.	1955.	1956.	1957.	1958.	1959.
New South Wales(a) ..	233,777	249,131	282,489	294,540	303,504
Victoria	133,575	158,869	208,125	251,065	265,214
Queensland(b)(c) ..	46,242	45,711	52,113	(a) 60,592	(a) 60,212
South Australia(b) ..	29,264	28,221	30,658	32,621	34,203
Western Australia(a) ..	65,118	59,883	56,297	47,037	47,579
Tasmania	17,314	(a) 17,029	(a) 17,040	(a) 17,216	(a) 19,094
Northern Territory ..	(b) 1,864	(b) 2,444	(b) 2,340	2,715	3,212
Australian Capital Territory ..	1,285	1,209	1,597	1,910	1,787
Australia	528,439	562,497	650,659	707,696	734,805

(a) See footnote (a) to table in para. 1 above. (b) Twelve months ended 30th June of year shown. (c) A person convicted on several counts at the one hearing is included only once, but if a person has been convicted at different hearings during the year, whether for the same or for a different type of offence, the results of all hearings are recorded separately.

3. **Convictions for Serious Crime at Magistrates' Courts.**—(i) *General.* The figures given in the preceding tables refer to all convictions, and include offences of a technical nature, drunkenness, and minor breaches of good order which come under the heading of crime in a very different sense from the more serious offences. The following table has therefore been prepared to show convictions at Magistrates' Courts for what may be regarded as the more serious offences, i.e. offences against the person, offences against property, forgery and offences against the currency.

(ii) *Number and Rates.* The following table shows the number of convictions for serious crime at Magistrates' Courts for the years 1955 to 1959:—

CONVICTIONS FOR SERIOUS(a) CRIME AT MAGISTRATES' COURTS.

State or Territory.	1955.	1956.	1957.	1958.	1959.
New South Wales	19,803	21,399	23,510	27,960	30,769
Victoria	7,318	8,504	8,926	11,132	12,260
Queensland(b)(c)	3,546	3,942	4,079	4,301	4,422
South Australia(b)	1,867	1,889	2,298	2,338	2,554
Western Australia	4,368	5,289	5,205	6,016	5,423
Tasmania	1,127	1,176	1,738	1,666	1,634
Northern Territory	(b) 177	(b) 115	(b) 247	209	297
Australian Capital Territory	138	102	295	357	384
Australia	38,344	42,416	46,298	53,979	57,743

(a) Offences against the person, offences against property, forgery and offences against the currency.

(b) Twelve months ended 30th June of year shown. (c) A person convicted on several counts at the one hearing is included only once, but if a person has been convicted at different hearings during the year, whether for the same or for a different type of offence, the results of all hearings are recorded separately.

The number of convictions for serious crime at Magistrates' Courts per 10,000 of population for the same series of years is shown in the following table:—

CONVICTIONS FOR SERIOUS CRIME AT MAGISTRATES' COURTS.

(PER 10,000 OF POPULATION.)

State or Territory.	1955.	1956.	1957.	1958.	1959.
New South Wales	56.7	60.2	64.9	75.7	81.9
Victoria	29.0	32.7	33.4	40.6	43.6
Queensland(a)	26.8	29.1	29.5	30.2	31.0
South Australia(a)	23.1	22.6	26.7	25.7	28.1
Western Australia	66.3	78.1	75.2	85.3	75.4
Tasmania	35.6	36.5	52.6	49.3	47.4
Northern Territory	(a) 107.0	(a) 65.8	(a) 134.7	108.7	145.0
Australian Capital Territory ..	42.6	49.4	78.3	90.9	82.4
Australia	41.8	45.1	48.1	54.7	57.8

(a) Twelve months ended 30th June of year shown.

(iii) *Rate of Convictions 1881 to 1951.* The rate of convictions at ten-year intervals over a period of 70 years is shown below.

**RATE OF CONVICTIONS FOR SERIOUS CRIME AT MAGISTRATES' COURTS:
AUSTRALIA.**

Year	1881.	1891.	1901.	1911.	1921.	1931.	1941.	1951.
Convictions per 10,000 persons..	69.3	44.8	29.1	24.6	29.2	37.1	33.6	37.1

4. **Committals to Higher Courts.**—(i) *Number of Committals.* The following table shows the number of offences, classified according to the nature of the offence, for which persons appearing in the lower courts were committed to higher courts for each State and Territory for the year 1959:—

COMMITTALS TO HIGHER COURTS, 1959.

Class of Offence.	N.S.W.	Vic.	Q'land. (a)(b)	S. Aust. (a)	W.Aust.	Tas.	N.T.	A.C.T.	Aus- tralia.
Against the Person ..	1,347	884	257	226	69	54	25	9	2,871
Against Property ..	5,514	2,861	678	278	294	445	43	52	10,165
Forgery and Offences against the Currency ..	498	454	4	26	72	14	13	3	1,084
Against Good Order ..	95	44	3	5	8	..	12	1	168
Other ..	68	280	12	23	4	16	..	..	403
Total ..	7,522	4,523	954	558	447	529	93	65	14,691

(a) Year ended 30th June. (b) A person committed on several counts at the one hearing is included only once, but if a person has been committed at different hearings during the year, whether for the same or for a different type of offence, the results of all hearings are recorded separately.

The following table shows the number of committals to higher courts for each of the years 1955 to 1959:—

COMMITTALS TO HIGHER COURTS.

State or Territory.	1955.	1956.	1957.	1958.	1959.
New South Wales ..	4,792	6,056	7,221	7,327	7,522
Victoria ..	2,198	2,624	2,707	4,227	4,523
Queensland(a) ..	482	572	712	911	954
South Australia(a) ..	426	432	552	505	558
Western Australia ..	454	386	356	463	447
Tasmania ..	348	321	604	600	529
Northern Territory ..	(a) 45	(a) 87	(a) 62	66	93
Australian Capital Territory ..	25	40	37	74	65
Australia ..	8,770	10,518	12,251	14,173	14,691

(a) Twelve months ended 30th June of year shown.

(ii) *Rate of Committals, 1881 to 1951.* The rate of committals to higher courts for serious crime at ten-year intervals since 1881 is shown below:—

RATE OF COMMITTALS TO HIGHER COURTS: AUSTRALIA.

Year ..	1881.	1891.	1901.	1911.	1921.	1931.	1941.	1951.
Committals per 10,000 persons ..	12	11	8	6	7	8	5	8

5. **Drunkenness.**—(i) *Cases and Convictions.* The numbers of arrests for drunkenness and the convictions recorded during each of the years 1955 to 1959 are given in the following table:—

DRUNKENNESS: CASES AND CONVICTIONS.

State or Territory.	1955.	1956.	1957.	1958.	1959.
CASES.					
New South Wales ..	81,199	77,867	76,700	69,085	69,516
Victoria ..	20,685	20,457	25,657	29,752	29,973
Queensland(a) ..	23,986	22,748	23,550	28,242	26,993
South Australia(a) ..	4,772	4,739	5,030	4,312	4,452
Western Australia ..	5,752	5,959	5,484	4,870	5,632
Tasmania ..	776	705	786	746	732
Northern Territory ..	(a) 487	(a) 507	(a) 1,059	969	1,024
Australian Capital Territory ..	231	279	358	385	255
Australia ..	137,888	133,261	138,624	138,361	138,577

(a) Twelve months ended 30th June of year shown.

DRUNKENNESS: CASES AND CONVICTIONS—*continued.*

State or Territory.	1955.	1956.	1957.	1958.	1959.
CONVICTIONS.					
New South Wales	80,457	77,195	75,953	68,354	69,201
Victoria	20,437	20,184	25,284	29,434	29,334
Queensland(a)	23,947	22,687	23,521	28,196	26,918
South Australia(a)	4,765	4,732	5,019	4,299	4,439
Western Australia	5,720	5,912	5,428	4,821	5,587
Tasmania	757	674	760	718	660
Northern Territory	(a) 474	(a) 502	(a) 1,029	926	1,010
Australian Capital Territory	231	271	322	380	255
Australia	136,788	132,157	137,316	137,128	137,404

(a) Twelve months ended 30th June of year shown.

The term "drunkenness" includes drunkenness and disorderliness, and habitual drunkenness.

(ii) *Convictions per 10,000 of Population.* In the twenties, the convictions for drunkenness averaged approximately 100 per 10,000 of population, but the rate fell away considerably during 1930 and 1931, being only 57.1 in the latter year. The average then rose steadily, the annual average for the period 1936 to 1939 being 82.7 and that for the years 1940 to 1945, 90.8. In 1946, the convictions per 10,000 rose very steeply to 132.1, increasing further to 174.5 by 1951, since when they have declined again to 136.9 in 1959.

The rates of convictions for drunkenness for the years 1955 to 1959 are shown in the following table:—

CONVICTIONS FOR DRUNKENNESS.

(PER 10,000 OF POPULATION.)

State or Territory.	1955.	1956.	1957.	1958.	1959.
New South Wales	230.4	217.1	209.7	185.1	184.1
Victoria	80.9	77.5	94.6	107.4	104.3
Queensland(a)	180.7	167.7	170.4	200.9	188.8
South Australia(a)	59.0	56.7	58.3	48.5	48.9
Western Australia	86.8	87.3	79.5	68.3	77.7
Tasmania	23.9	20.9	23.0	21.3	19.2
Northern Territory	(a)286.6	(a)287.3	(a)555.8	481.6	493.3
Australian Capital Territory	71.3	78.1	85.6	88.5	54.7
Australia	149.1	140.6	142.8	138.9	136.9

(a) Twelve months ended 30th June of year shown.

(iii) *Remedial Treatment of Drunkenness.* For particulars of relevant legislation and some details of the various institutions established for the treatment of inebriates, see Official Year Book, No. 46, p. 632.

6. **First Offenders.**—In all States and Territories, statutes are in force for dealing with first offenders. For particulars of the relevant legislation, see Official Year Book, No. 46, page 632. Provisions are incorporated in the various Acts whereby courts may extend leniency to the offender by means such as: (i) dismissal of the charge without proceeding to a conviction; (ii) freeing the offender or suspending sentence with the requirement of a recognizance for good behaviour for a specified period; and (iii) by placing the offender under the supervision of a probation officer for a specified period. The provisions existing in the individual States and Territories are set out in Year Book No. 46.

C. CIVIL PROCEEDINGS.

The total numbers of plaints entered and the amounts awarded to plaintiffs during 1959 are shown in the following table. The figures are compiled from returns from the Small Debts Courts in New South Wales, Courts of Petty Sessions in Victoria, Magistrates' Courts in Queensland, Local Courts in South Australia and Western Australia, Courts of Requests in Tasmania, Courts of Summary Jurisdiction in the Northern Territory and the Court of Petty Sessions in the Australian Capital Territory.

CIVIL CASES AT LOWER COURTS, 1959.

Particulars.	N.S.W.	Vic.	Q'land. (a)	S.Aust.	W.Aust.	Tas.	N.T. (a)	A.C.T.	Aus- tralia.
Plaints Entered									
No.	101,169	142,915	38,901	70,170	45,794	34,170	1,630	2,232	436,981
Amount Awarded to Plaintiffs £	834,886	2,748,576	843,123	1,356,884	527,805	485,786	48,980	44,060	6,890,100

(a) Year ended 30th June.

§ 3. Children's Courts.

1. **New South Wales.**—Children's Courts, first established in 1905, now exercise jurisdiction under the Child Welfare Act, 1939–60. Where practicable, they are not held in ordinary court rooms, and persons not directly interested are excluded from any hearing in order that children may be protected against the adverse influences which they would encounter in ordinary courts.

The magistrates exercise all the powers of a Court of Petty Sessions in respect of offences committed by or against children under 18 years of age. They also exercise jurisdiction in respect of neglected and uncontrollable children. Their functions are reformatory, not punitive; they may commit children to institutions, to the care of persons other than the parents, or to the care of the Minister.

2. **Victoria.**—Under the Children's Court Act 1958, the jurisdiction of Children's Courts is restricted, with certain exceptions, to children up to 17 years of age. Two stipendiary special magistrates with jurisdiction throughout the State and, in addition, honorary special magistrates, operate in some metropolitan courts and provincial cities. At country courts to which no special magistrates are appointed, the local stipendiary magistrate usually constitutes the bench. The Children's Court may deal with all offences except homicide. However, consent to the jurisdiction of the Children's Court must be indicated by the child (or by a parent if the child is under 14 years of age) before an indictable case may proceed.

The primary aim of the Children's Court is reformation and rehabilitation of the offender and the court is bound under Section 27(3) of the Children's Court Act 1958 to "firstly have regard to the welfare of the child".

The probation system has been in use by the Children's Court since 1907, and there are now in Victoria a large number of honorary probation officers as well as six stipendiary probation officers. Problem cases are referred by the Court for investigation to a Children's Court Clinic, which is staffed by psychiatrists, psychologists and social workers.

3. **Queensland.**—Children under the age of 17 years before the Court on summary charges are dealt with under the Children's Court Acts, 1907–1930, and the State Children Acts, 1911–1955. The Children's Court in the metropolitan area is presided over by a magistrate, and the services of the psychiatric clinic are available to him if he considers they are needed. Proceedings are held *in camera*. A non-commissioned police officer is present to offer any observations he considers necessary and to assist the magistrate. In country areas, the court is presided over by the local stipendiary magistrate or, in his absence, by two justices. If found guilty, a child may be either admonished, released on probation or committed to the care of the State Children Department or an institution. A conviction will not necessarily be recorded against him. His parent or guardian may be ordered to pay damages to the wronged party, and in default is liable to the same consequences as a defendant in an ordinary Court of Petty Sessions.

4. **South Australia.**—Provision for the treatment of juvenile offenders under the age of 18 years is contained in various Acts, the main ones being the Maintenance Act, 1926–1958, the Juvenile Courts Act, 1941, the Justices Act, 1921–1960, and the Offenders Probation Act, 1913–1953. A Juvenile Court to hear cases of offences by children is constituted by a special magistrate or two justices of a Juvenile Court, and it has power to determine all charges other than homicide. A child convicted of an offence punishable by imprisonment can be committed by a court only to a reformatory. For indictable offences, the penalty is committal to a reformatory or a fine of up to £50.

5. **Western Australia.**—Children's Courts deal with offenders under the age of 18 years and hear cases of certain offences against children. Special magistrates are appointed for Children's Courts, and the Governor may appoint other persons to be members of a particular Children's Court. One member may sit and adjudicate with the special magistrate, but in the magistrate's absence at least two members must be present.

A Children's Court is deemed to be a court of summary jurisdiction and may exercise exclusive jurisdiction in respect of all offences except wilful murder, murder, manslaughter or treason alleged to have been committed by children.

Adults charged with certain indictable offences against children may forego the right to trial by jury and agree to be dealt with summarily by Children's Courts.

6. **Tasmania.**—Under the provisions of the Infants' Welfare Act 1935, Children's Courts are established to deal with offenders under the age of 17 years. Special magistrates are appointed for the Children's Courts by the Governor. One or two special magistrates, or one or two justices, constitute a court.

A Children's Court is deemed to be a court of summary jurisdiction, and may exercise exclusive jurisdiction in respect of all offences alleged to have been committed by children.

7. **Northern Territory.**—The Child Welfare Ordinance 1958 provides for the establishment of Children's Courts. These courts are constituted by a special magistrate and one member of the Child Welfare Council authorized to sit as a member of the Children's Court. Where no Children's Court has been established for a particular area, or where special circumstances require it, the jurisdiction of a Children's Court may be exercised by a court of summary jurisdiction constituted by a special magistrate.

Proceedings in a Children's Court are in form similar to proceedings in a court of summary jurisdiction, but no reports of proceedings may be published without the express authority of the Court, and any person not directly concerned may be excluded from the hearing.

A Children's Court has jurisdiction in respect of all offences committed by persons under 18 years of age in respect of which proceedings may be taken in a court of summary jurisdiction. In dealing with such offences, the Court may, in cases other than homicide, impose a fine not exceeding fifty pounds or a sentence of imprisonment for not more than six months, and, in addition to or in lieu of these punishments, may make an order committing the child to the care of the Director of Child Welfare or of a person who is willing to undertake the care on the Courts' terms and conditions (in which case the child may be declared a State child), or it may commit the child to an institution for a specified period or release the child on probation on such conditions as the Court orders. Children's Courts also exercise jurisdiction in respect of destitute, neglected, incorrigible or uncontrollable children.

8. **Australian Capital Territory.**—The Child Welfare Ordinance 1957 provides that the Court of Petty Sessions constitutes the Children's Court when it is hearing proceedings involving persons under the age of 18 years. Its proceedings are similar to those of an ordinary Court of Petty Sessions except that persons not directly interested are excluded from the Court.

In addition to the power to deal with summary offences, the Children's Court has power to hear and determine summarily a charge for an indictable offence other than an offence punishable by death. In either case, the Court's powers include releasing an offender on probation, committing him to the care of a specified person, making him a government ward, or committing him to an institution for up to three years.

§ 4. Higher (Judges') Courts.

A. CRIMINAL PROCEEDINGS.

1. Persons Convicted at Higher Courts.—The following table shows the number of persons convicted at higher courts in each of the States and Territories of Australia during 1959, classified according to the nature of the offence:—

PERSONS CONVICTED AT HIGHER COURTS, 1959.

Offence.	N.S.W.	Vic.	Q'land. (a)(b)	S. Aust.	W. Aus.	Tas. (c)	N.T.	A.C.T.	Aus- tralia.
I. OFFENCES AGAINST THE PERSON.									
Infanticide	1	..	..	..	..	..	..	..	1
Concealment of Birth ..	..	..	..	..	..	..	..	..	1
Murder	12	3	8	3	2	2	..	..	30
Attempted Murder	3	2	1	1	..	1	..	..	7
Manslaughter	(d) 18	5	(d) 12	(d) 6	(d) 3	5	5	2	56
Culpable Driving	23	..	..	13	..	..	..	..	36
Rape	5	5	10	3	..	6	..	..	29
Other Offences against Females	206	227	69	113	2	17	9	3	646
Abduction	3	4	2	1	..	..	..	..	10
Incest	8	12	5	7	6	1	..	1	41
Unnatural Offences	108	109	21	33	5	3	3	..	282
Abortion and Attempts to Procure	10	1	..	3	..	..	1	..	15
Bigamy	27	3	13	3	2	..	..	..	50
Aggravated Assault	46	21	36	8	..	6	3	1	121
Common Assault	52	16	4	3	12	..	1	3	91
Malicious Wounding	28	31	..	..	..	..	..	..	59
Other Offences against the Person	7	10	12	5	..	14	1	..	49
Total	557	449	192	202	32	58	24	10	1,524
II. OFFENCES AGAINST PROPERTY.									
Burglary, Breaking and Entering	875	727	357	170	111	147	9	8	2,404
Robbery and Stealing from the Person	69	60	20	9	4	22	..	4	188
Horse, Cattle and Sheep Stealing .. ..	..	15	5	5	..	..	2	..	27
Embezzlement or Fraudulent Misappropriation	88	26	5	9	10	3	..	2	143
Other larceny	532	189	19	19	27	..	19	7	812
Illegally using Vehicles	1	56	254	..	2	..	..	..	313
Receiving	42	44	14	2	1	3	..	..	107
Fraud and False Pretences	95	37	13	24	9	11	5	5	199
Arson .. ..	..	11	4	3	..	6	..	..	24
Malicious Damage to Property or Animals	13	6	7	1	3	..	..	..	30
Other Offences against Property	14	16	3	7	..	1	..	..	41
Total	1,729	1,187	701	249	167	193	35	27	4,288
III. FORGERY AND OFFENCES AGAINST THE CURRENCY.									
Forgery and Uttering Forged Instruments	20	63	7	28	9	23	9	3	162
Other Offences against the Currency .. ..	..	..	..	1	..	..	..	..	1
Total	20	63	7	29	9	23	9	3	163
IV. OFFENCES AGAINST GOOD ORDER									
.. ..	4	2	3	..	6	10	..	..	25
V. OTHER									
.. ..	15	98	12	19	2	6	1	..	153
Total all Offences ..	2,325	1,799	915	499	216	290	69	40	6,153

(a) Year ended 30th June. (b) A person convicted on several counts at the one hearing is included only once, but if a person has been convicted at different hearings during the year, whether for the same or for a different type of offence, the results of all hearings are recorded separately. (c) Convictions. (d) Includes causing death by dangerous driving.

2. **Persons Convicted at Higher Courts.**—The numbers of persons convicted at higher courts and rates of conviction per 10,000 of population for the years 1955 to 1959 are given in the following table:—

PERSONS CONVICTED AT HIGHER COURTS.

State or Territory.	1955.	1956.	1957.	1958.	1959.
NUMBER.					
New South Wales	(a) 1,631	(a) 1,933	2,225	2,274	2,325
Victoria	1,043	1,249	1,643	1,779	1,799
Queensland(a)(b)	382	431	584	883	915
South Australia	340	362	459	457	499
Western Australia	260	241	200	255	216
Tasmania(c)	154	184	205	276	290
Northern Territory	(a) 55	(a) 72	(a) 59	31	69
Australian Capital Territory..	20	40	32	50	40
Australia	3,885	4,512	5,407	6,005	6,153

PER 10,000 OF POPULATION.

New South Wales	(a) 4.7	(a) 5.5	6.1	6.2	6.2
Victoria	4.1	4.8	6.1	6.5	6.4
Queensland(a)(b)	2.9	3.2	4.2	6.3	6.4
South Australia	4.1	4.3	5.3	5.0	5.4
Western Australia	3.9	3.6	2.9	3.6	3.0
Tasmania(c)	4.9	5.7	6.8	8.2	8.4
Northern Territory	(a) 33.3	(a) 41.2	(a) 32.2	16.1	33.7
Australian Capital Territory..	6.2	11.5	8.5	12.2	8.6
Australia	4.2	4.8	5.6	6.1	6.1

(a) Twelve months ended 30th June of year shown. (b) A person convicted on several counts at the one hearing is included only once, but if a person has been convicted at different hearings during the year, whether for the same or for a different type of offence, the results of all hearings are recorded separately. (c) Convictions.

3. **Habitual Offenders.**—An account of the methods adopted in each jurisdiction in connexion with habitual offenders is given in the following paragraphs.

(i) *Commonwealth.* Under the provisions of the Crimes Act 1914–1960, where a person who is convicted of an indictable offence against the law of the Commonwealth has been previously convicted on at least two occasions of indictable offences against the law of the Commonwealth or of a State or Territory, the court before which he is convicted may declare that he is an habitual criminal, and may direct as part of his sentence that on expiration of the term of imprisonment then imposed on him he be detained during the pleasure of the Governor-General.

(ii) *New South Wales.* The Habitual Criminals Act, 1957, gives power to judges to declare as an habitual criminal any person of or above the age of 25 years who has been convicted on indictment and has on at least two occasions previously served separate terms of imprisonment as a consequence of convictions for indictable offences, provided that such offences were not dealt with summarily without his consent. A person may also be pronounced by a Judge to be an habitual criminal upon recommendation by a Stipendiary Magistrate.

A judge, having pronounced a person to be an habitual criminal, shall sentence him to a term of imprisonment of not less than five years nor more than fourteen years.

An habitual criminal so sentenced may be considered for release on licence in the light of his conduct and attitude after he has served two-thirds of his sentence. He will, in any event, be granted a remission to permit his release on licence after five-sixths of his sentence, subject to good conduct and industry.

At 30th June, 1960, there were 101 prisoners detained in pursuance of the legislation.

(iii) *Victoria*. The Indeterminate Sentences provisions of the Crimes Act were abolished as from 1st July, 1957, with the proclamation of the Penal Reform Act 1956. The terms "reformatory prison" and "habitual criminal" also ceased to exist as from that date.

Under the Penal Reform Act 1956, a sentence of twelve months or more must contain provision for an offender's release on parole after he has served a minimum term which must be named. With sentences of under twelve months, the courts may fix a minimum term.

The relevant parts of the Penal Reform Act 1956 have now been embodied in Sections 506 to 542 of the Crimes Act 1958. In the case of the persistent offender, if the court is satisfied that it is expedient for the protection of the public that he should be detained in gaol for a substantial time, the court may pass a sentence of preventive detention for a term of not more than ten years, and where any such sentence is passed shall fix a minimum term during which the offender shall not be eligible to be released on parole.

(iv) *Queensland*. Sections 659A to 659I of the Queensland Criminal Code deal with habitual criminals. Only the Supreme Court or a judge thereof may declare a person to be an habitual criminal. An habitual criminal is detained in a reformatory prison (Section 659D) and there employed (Section 659F).

Where the Supreme Court or a judge recommends the discharge of an habitual criminal, the Governor may direct his discharge and may order him so long as he remains in Queensland to report at intervals during any period not exceeding two years (Section 659G).

An habitual criminal may be released by order in writing (called a "parole order") by the Parole Board set up under the provisions of "The Offenders Probation and Parole Act of 1959," after he has been detained during a period of two years (Section 32).

(v) *South Australia*. The Criminal Law Consolidation Act, 1935–1956 provides that persons previously convicted of a certain number of indictable offences of a particular class may be declared habitual criminals and shall then be detained during Her Majesty's pleasure. Proof of previous convictions is in all cases relevant to the question of penalty.

(vi) *Western Australia*. Under the Criminal Code Amendment Act, 1918, power is given to sentence a prisoner to be detained in a reformatory prison during the Governor's pleasure, where such prisoner is deemed to be an habitual criminal, or in other special circumstances where the Court considers such a sentence is fit.

The number under preventive detention on 30th June, 1959, was 23 and the total number dealt with since the passing of the Act was 187.

(vii) *Tasmania*. Since the Indeterminate Sentences Act came into operation in 1922, 110 persons have been confined under its provisions and 13 were in custody at the end of 1960.

Of the 97 released on probation, 25 have been re-committed.

(viii) *Northern Territory*. The Habitual Criminals Amendment Act, 1907, of South Australia is still in force in the Northern Territory. By virtue of that Act, the Judge of the Northern Territory has power to declare as habitual criminals persons of any age who come before him for sentence and have had at least two or, in some cases, three previous convictions for certain indictable offences specified in the Act. The result of the declaration is that the offender is detained for an indefinite period after the completion of his sentence, and is released only when he is considered fit to be at large.

(ix) *Australian Capital Territory*. The Habitual Criminals Act, 1905, of New South Wales is still in force in the Australian Capital Territory. By virtue of that Act, a judge of the Australian Capital Territory Supreme Court has power to declare as habitual criminals persons of any age who come before him for sentence and have had at least two or, in some cases, three previous convictions for certain indictable offences specified in the Act. The result of the declaration is that the offender is confined for an indefinite period after the completion of his sentence, and is released only when he is considered fit to be at large. Habitual criminals declared in the Australian Capital Territory are detained in New South Wales.

4. **Capital Punishment.**—There were ten executions in Australia during the period 1949 to 1959. Three took place in Victoria (in 1951), four in South Australia (one each in 1950, 1953, 1956, and 1958), one in Western Australia (in 1952), and two in the Northern Territory (in 1952). In each case the offence was murder.

Under the Criminal Code Amendment Act of 1922, capital punishment was abolished in Queensland, and in New South Wales the Crimes Act was amended in 1955 abolishing capital punishment for all offences except treason and piracy. In the Australian Capital Territory, the Child Welfare Ordinance 1957 now provides that no death sentence is to be pronounced or recorded against a person under the age of 18 years.

In the early days of the history of Australia, the penalty of death was attached to a large number of offences, many of which would now be dealt with in a Magistrate's Court. The present tendency is to restrict death sentences to persons convicted of murder. Although rape is a capital offence in some States, the penalty of death has not been imposed in recent years on persons convicted of it.

The average annual number of executions in Australia from 1861 to 1880 was 9; from 1881 to 1900, 6; from 1901 to 1910, 4; from 1911 to 1920, 2; from 1921 to 1930, 2; from 1931 to 1940, 1; and from 1941 to 1950, 0.5.

B. DIVORCE AND OTHER MATRIMONIAL RELIEF.

1. Separation and Maintenance Orders of Courts of Summary Jurisdiction.—In all States and Territories, there are laws enabling a wife whose husband leaves her or the children of the marriage without adequate means of support to obtain a maintenance order against the husband from a court of summary jurisdiction. In some States and the Northern Territory, courts of summary jurisdiction also have power to make separation orders. A separation order is primarily intended for the protection of the person of the wife.

2. Divorce and Other Matrimonial Relief Granted by Higher Courts.—The matrimonial relationship may be terminated by a Supreme Court of a State or Territory in one of three ways. Firstly, there may be a dissolution of the marriage, commonly known as divorce; secondly, the courts may annul a marriage; and thirdly, there can be a judicial separation of the parties.

Up till now, each State has been primarily responsible for the provision of matrimonial relief. The law has varied from State to State; for example, as to the period of desertion needed to obtain a decree for the dissolution of marriage.

In 1959, however, the Commonwealth Parliament passed the Matrimonial Causes Act 1959 which came into force on 1st February, 1961. The Act establishes uniform grounds throughout the whole of the Commonwealth for the termination of marriage. While the Act displaces corresponding State law, it vests jurisdiction in existing State and Territorial Courts.

All statistical information given in this section relates to proceedings under the system before the operation of the Commonwealth Act. The various grounds of dissolution available are shown in the tables.

3. Matrimonial Causes Act 1959.—Under the Commonwealth Matrimonial Causes Act 1959, a decree for the dissolution of marriage may be granted on various grounds, such as adultery, desertion, insanity, separation for five years in certain circumstances, or failure to comply with a restitution decree.

Proceedings for nullity of marriage may be instituted in respect of a marriage which is void or voidable. A marriage which is void has no existence at all, and so it is not legally necessary to obtain a decree of nullity of marriage, but since the issue may depend on difficult questions of fact, such as proof that the consent of one of the parties to the marriage was not a real consent, it is advisable and customary to seek a court judgment which decides the question of the validity of the marriage.

Proceedings for annulling a voidable marriage may be instituted on various grounds, as, for example, where at the time of the marriage either party was a mental defective. Proceedings must be taken before the marriage is terminated by dissolution or death. A voidable marriage is void from the date of the decree absolute, but until then the parties have the status of married people, and transactions concluded on the basis of the existence of that status cannot be undone or reopened. Since the parties to a marriage which is void or which has been voided do not have the status of married people, they may re-marry.

A decree for dissolution or annulment is first a decree nisi. The decree automatically becomes absolute at the expiration of three months, unless it is in the meantime rescinded, appeal proceedings are instituted, or there are children of the marriage under the age of 16, in which case the Court must be satisfied that appropriate arrangements have been made for their welfare before the decree will become absolute. The parties cannot re-marry until a decree nisi has become absolute.

A decree of judicial separation is available on most of the grounds available for divorce. It leaves unimpaired the status of marriage, but suspends rights and duties with respect to cohabitation. A husband is not responsible for the acts of his wife, except that he is liable for necessities supplied to her if he has failed to pay alimony ordered by a court. Persons who have judicially separated cannot re-marry, but a divorce may be obtained on the same facts as those on which the decree of judicial separation is based.

The new Commonwealth Act provides for financial grants to approved marriage guidance organizations and the courts are enjoined to consider at all times the possibility of reconciliation, and they may take certain steps to endeavour to effect a reconciliation.

In the following tables the term "divorce" is used to cover dissolution of marriage, nullity of marriage and judicial separation.

4. Number of Petitions Filed.—The following table shows the number of petitions for dissolution of marriage, nullity of marriage and judicial separation filed in each State during 1959:—

PETITIONS FILED FOR DISSOLUTION OF MARRIAGE, NULLITY OF MARRIAGE AND JUDICIAL SEPARATION, 1959.

Petition for—	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Dissolution of Marriage—									
Husband Petitioner ..	1,743	814	450	329	351	123	10	23	3,843
Wife Petitioner ..	2,141	836	526	460	320	160	2	20	4,465
Total ..	3,884	1,650	976	789	671	283	12	43	8,308
Nullity of Marriage—									
Husband Petitioner ..	11	3	5	2	1	..	..	..	22
Wife Petitioner ..	20	9	7	4	2	..	..	1	43
Total ..	31	12	12	6	3	..	..	1	65
Judicial Separation—									
Husband Petitioner ..	1	1	1	..	4	..	..	..	7
Wife Petitioner ..	14	3	3	1	3	..	..	..	24
Total ..	15	4	4	1	7	..	..	..	31
Total Petitions—									
Husband Petitioner No.	1,755	818	456	331	356	123	10	23	3,872
Wife Petitioner No.	2,175	848	536	465	325	160	2	21	4,532
%	55	51	54	58	48	57	17	48	54
Grand Total ..	3,930	1,666	992	796	681	283	12	44	8,404

5. Number of Divorces Granted, 1959.—The following table shows the number of dissolutions of marriage, nullities of marriage and judicial separations granted in each State during 1959:—

DISSOLUTIONS OF MARRIAGE, NULLITIES OF MARRIAGE AND JUDICIAL SEPARATIONS GRANTED, 1959.

Decree for—	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Dissolution of Marriage(a)—									
Husband Petitioner ..	1,448	867	340	220	299	87	6	11	3,278
Wife Petitioner ..	1,915	994	399	283	285	105	8	18	4,007
Total ..	3,363	1,861	739	503	584	192	14	29	7,285
Nullity of Marriage(b)—									
Husband Petitioner ..	9	6	1	4	1	..	..	..	21
Wife Petitioner ..	14	10	4	3	1	..	..	..	32
Total ..	23	16	5	7	2	..	..	..	53
Judicial Separation—									
Husband Petitioner ..	..	..	..	..	1	..	..	..	2
Wife Petitioner ..	..	..	1	..	..	..	..	..	2
Total ..	..	..	1	..	1	..	..	..	2
Total Decrees—									
Husband Petitioner No.	1,457	873	341	224	300	87	6	11	3,299
Wife Petitioner No.	1,929	1,004	404	286	287	105	8	18	4,041
%	57	53	54	56	49	55	57	62	55
Grand Total ..	3,386	1,877	745	510	587	192	14	29	7,340

(a) Decrees absolute.

(b) Final decrees.

6. Number of Divorces granted, 1955 to 1959.—The following table shows the number of dissolutions of marriage, nullities of marriage and judicial separations granted in each State and Territory for each year from 1955 to 1959:—

DISSOLUTION OF MARRIAGE (DECREES ABSOLUTE).

State or Territory.	1955.	1956.	1957.	1958.	1959.
New South Wales	2,874	3,125	2,975	3,217	3,363
Victoria	(a)1,674	(a)1,255	1,345	1,698	1,861
Queensland	801	703	682	759	739
South Australia	624	567	529	483	503
Western Australia	479	544	541	536	584
Tasmania	233	196	179	165	192
Northern Territory	18	25	18	15	14
Australian Capital Territory	21	20	29	36	29
Australia	6,724	6,435	6,298	6,909	7,285

NULLITY OF MARRIAGE (FINAL DECREES).

State or Territory.	1955.	1956.	1957.	1958.	1959.
New South Wales	17	18	32	18	23
Victoria	16	13	15	19	16
Queensland	2	5	7	7	5
South Australia	4	5	8	9	7
Western Australia	6	4	1	6	2
Tasmania .. .. .	..	1	1	..	..
Northern Territory .. .. .	..	..	..	1	..
Australian Capital Territory .. .. .	..	..	..	1	..
Australia	45	46	64	61	53

JUDICIAL SEPARATION.

State or Territory.	1955.	1956.	1957.	1958.	1959.
New South Wales	9	4	6	5	..
Victoria	1	2	2	..	..
Queensland .. .. .	..	..	..	1	1
South Australia .. .. .	..	..	1	5	..
Western Australia	3	4	3	2	1
Tasmania .. .. .	..	..	..	..	..
Northern Territory .. .. .	..	..	..	..	..
Australian Capital Territory .. .. .	..	1	..	..	..
Australia	13	11	12	13	2

(a) Decrees nisi granted.

7. **Average Number of Divorces granted Annually.**—The ten-year averages of the numbers of divorces (i.e., dissolutions, nullities and judicial separations) granted annually in Australia for the 80 years from 1871 to 1950 are as follows:

DIVORCES: AUSTRALIA.

Decade 1871–80.	1881–90.	1891–1900.	1901–10.	1911–20.	1921–30.	1931–40.	1941–50
Average 29	70	357	399	741	1,692	2,508	6,187

8. **Grounds on which Divorces were Granted.**—The grounds on which dissolutions of marriage, nullities of marriage and judicial separations were granted during 1959 in each State and Territory are shown in the following table, but it should be borne in mind that the legal grounds for divorce vary as between States and Territories:—

GROUND OF DISSOLUTION OF MARRIAGE, NULLITY OF MARRIAGE AND JUDICIAL SEPARATION, 1959.

Ground.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Dissolution of Marriage—									
Adultery	876	464	242	175	274	70	5	6	2,112
Bigamy	1	..	..	..	..	..	..	..	1
Cruelty	106	8	..	90	..	2	2	1	209
Cruelty and Drunkenness ..	97	12	..	..	3	2	..	3	117
Desertion	2,206	1,270	492	218	149	117	5	17	4,474
Desertion and Adultery ..	..	86	..	..	1	..	..	..	87
Drunkenness and Failure to Support ..	55	2	..	1	1	..	1	1	61
Drunkenness and Neglect of Domestic Duties ..	8	4	..	3	..	..	..	1	16
Failure to Pay Maintenance ..	..	..	..	3	21	..	..	..	24
Imprisonment	12	8	..	1	3	..	1	..	25
Incest .. ..	..	..	..	..	..	..	..	..	..
Insanity	1	6	5	5	1	1	..	..	19
Presumption of Death ..	..	..	..	..	..	..	..	..	..
Refusal to Consummate ..	..	..	..	..	1	..	..	..	1
Separation for over 5 years .. ..	..	..	..	6	130	..	..	..	136
Sodomy	1	1	..	1	..	..	..	..	3
Total	3,363	1,861	739	503	584	192	14	29	7,285
Nullity of Marriage—									
Non-consummation .. ..	..	..	..	2	..	..	..	..	2
Bigamy	11	1	1	..	2	..	..	..	15
Impotence	11	8	4	5	..	..	..	..	28
Invalid Marriage .. ..	..	4	..	..	..	..	..	..	4
Want of Consent	1	..	..	..	..	..	..	..	1
Failure to Comply with Legal Provision ..	..	..	..	..	..	..	..	..	..
Consanguinity .. ..	..	3	..	..	..	..	..	..	3
Not Stated .. ..	..	..	..	..	..	..	..	..	..
Total	23	16	5	7	2	..	..	..	53
Judicial Separation—									
Adultery .. ..	..	..	1	..	1	..	..	..	1
Cruelty .. ..	..	..	..	..	..	..	..	..	1
Desertion .. ..	..	..	..	..	..	..	..	..	..
Total .. ..	..	..	1	..	1	..	..	..	2
Grand Total ..	3,386	1,877	745	510	587	192	14	29	7,340

(a) Includes non-compliance with order for restitution of conjugal rights, 414.

9. **Ages of Husband and Wife at Time of Dissolution of Marriage.**—The following table shows the number of husbands and wives in each age group who were parties to marriages dissolved in 1959. Age is taken at the time the decree absolute is made.

Forty-two per cent. of wives were in the 25–34 years age group and 42 per cent. of husbands in the 30–39 years age group. These proportions have varied little during recent years, and are considerably higher than the proportions of married persons of those age groups in the whole population (27 per cent. and 26 per cent. respectively at the Census of 30th June, 1947; 28 per cent. and 26 per cent. respectively at the Census of 30th June, 1954).

AGES OF PARTIES AT TIME OF DISSOLUTION OF MARRIAGE: AUSTRALIA, 1959.

Age of Husband (Years).	Age of Wife (Years).										Total Husbands.	
	Under 21.	21 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 and over.		Not stated.
Under 21	..	2	2	..	..	..	..	..	..	..	..	4
21 to 24	..	22	83	18	1	2	1	..	..	..	..	127
25 to 29	..	10	292	539	74	9	1	..	..	..	..	926
30 to 34	..	5	92	636	750	109	21	5	..	..	..	1,618
35 to 39	23	173	601	552	112	19	5	1	..	1,486
40 to 44	2	32	152	418	358	83	23	1	..	1,070
45 to 49	16	72	152	312	249	40	6	1	848
50 to 54	5	17	45	121	218	152	21	4	584
55 to 59	1	5	20	39	66	113	62	15	321
60 and over	1	8	15	36	57	76	1	229
Not Stated	..	1	1	..	..	..	..	..	..	..	70	72
Total Wives	40	496	1,420	1,673	1,315	980	676	368	148	97	72	7,285

10. Duration of Marriages Dissolved and Number of Children.—The following table shows the number of dissolutions of marriage granted in 1959, classified according to the legal duration of the marriage (i.e., the period from the date of marriage to the date when the decree nisi was made absolute) and number of children. In 1959, approximately two-thirds of the marriages dissolved were of less than fifteen years' duration and 38 per cent. were of less than ten years' duration.

DURATION OF MARRIAGES DISSOLVED AND NUMBER OF CHILDREN(a): AUSTRALIA, 1959.

Duration of Marriage (Years).	Dissolutions of Marriages with—												Total Dissolutions of Marriage.	Total Children. (a)
	No Children.	1 Child.	2 Children.	3 Children.	4 Children.	5 Children.	6 Children.	7 Children.	8 Children.	9 Children.	10 Children.	11 Children and over.		
1 year and under 2	..	18	..	..	..	..	..	..	..	..	..	..	18	..
2 years and under 3	..	51	.. 5	..	..	..	..	1	..	..	..	..	57	.. 11
3 " " " 4	..	91	49	9	..	..	..	..	..	..	..	..	150	70
4 " " " 5	..	161	77	21	1	..	..	..	..	..	..	..	260	122
5 " " " 6	..	219	138	31	6	..	..	1	..	..	..	..	395	224
6 " " " 7	..	230	138	63	8	..	..	..	..	..	..	..	444	309
7 " " " 8	..	232	139	80	17	4	..	..	..	..	..	..	472	366
8 " " " 9	..	217	148	84	15	6	2	..	..	..	..	..	472	395
9 " " " 10	..	190	150	106	29	6	4	..	..	..	..	..	485	493
10 " " " 11	..	169	129	103	40	12	5	1	..	..	..	..	459	534
11 " " " 12	..	154	130	130	55	21	2	..	..	..	..	..	492	649
12 " " " 13	..	122	104	93	46	19	4	..	..	..	..	..	388	524
13 " " " 14	..	97	77	111	54	21	5	2	..	..	..	1	368	593
14 " " " 15	..	68	72	70	41	9	5	..	..	..	..	..	265	396
15 " " " 16	..	65	60	55	46	16	1	1	1	..	..	..	247	405
16 " " " 17	..	57	51	66	42	20	6	3	1	..	..	..	246	444
17 " " " 18	..	54	77	89	48	10	1	4	..	1	..	..	284	476
18 " " " 19	..	53	45	75	27	21	3	..	..	..	..	..	224	375
19 " " " 20	..	45	52	61	42	17	6	1	1	1	..	..	226	419
20 " " " 21	..	27	40	55	23	15	5	3	4	..	..	..	172	350
21 " " " 25	..	88	111	122	88	57	12	8	5	2	1	..	494	1,015
25 " " " 30	..	50	84	111	56	46	12	10	4	6	1	1	381	873
30 " " " 35	..	28	32	56	34	19	9	5	2	1	2	1	190	461
35 " " " 40	..	11	10	15	16	4	4	3	..	3	..	..	66	166
40 " " " 45	..	3	..	10	1	2	2	..	..	1	..	..	19	49
45 " " and over	..	2	1	1	1	2	..	..	..	..	..	..	8	20
Not Stated	..	1	..	2	..	..	..	..	..	..	..	..	3	4
Total Dissolutions of Marriage	2,503	1,919	1,619	737	330	91	43	19	16	4	2	2	7,285	..
Total Children (a)	..	1,919	3,238	2,211	1,320	455	258	133	128	36	20	25	..	9,743

(a) The term "children" used in the above table, being dependent upon State legislation and court rules, is not comparable in all States, and is defined as follows:—New South Wales, Victoria and Western Australia, issue of the marriage, of all ages, living and dead; Queensland, children, including adoptions and step-children of all ages, living and dead; South Australia, issue of the marriage, living, under 16; Tasmania, living issue of the marriage.

11. **Number of Divorced Persons at each Census 1901 to 1954.**—The following table shows the number and proportion of divorced persons in Australia as recorded from returns supplied at each census from 1901 to 1954. A classification of these persons by age appeared in earlier issues of the Official Year Book (*see* No. 39, p. 269). Prior to 1911, no record was made of divorced persons in South Australia, so comparisons cannot be made to extend beyond that date.

DIVORCED PERSONS AT CENSUS DATES: AUSTRALIA.

Sex.	Number.						Proportion per 10,000 of Males or Females, 15 years of age and over.					
	1901. (a)	1911.	1921.	1933.	1947.	1954.	1901. (a)	1911.	1921.	1933.	1947.	1954.
Males ..	1,234	2,368	4,233	10,298	25,052	32,389	10	15	23	42	89	100
Females ..	1,149	2,140	4,304	10,888	27,516	36,650	10	15	24	46	96	115

(a) Excludes South Australia.

C. BANKRUPTCY.

1. **General.**—Particulars relating to bankruptcy in each State to the end of 1927 were incorporated in issues of the Official Year Book prior to No. 23. On 1st August, 1928, the Commonwealth Bankruptcy Act, which is now the Bankruptcy Act 1924–1960, came into operation.

Under the Bankruptcy Act 1924–1960, the Commonwealth is divided into bankruptcy districts which coincide generally with State boundaries. A Federal Court of Bankruptcy has been established with jurisdiction throughout Australia, but it exercises this jurisdiction mainly in the bankruptcy districts of New South Wales, which includes the Australian Capital Territory, and Victoria. Certain State courts have been invested with federal jurisdiction in bankruptcy and, outside New South Wales and Victoria, usually exercise that jurisdiction in the appropriate bankruptcy district.

Any person unable to pay his debts may voluntarily apply for the sequestration of his estate, or his creditors may apply for a compulsory sequestration, if he has committed an act of bankruptcy. The act of bankruptcy usually relied on is non-compliance by a debtor with a bankruptcy notice which requires the debtor to whom it is addressed to pay within a specified time, to a creditor who has obtained a final judgment or order to pay, the amount of the debt, or satisfy the Court that he has a counter-claim, set-off, or cross demand which equals or exceeds the judgment debt. If a bankruptcy notice is not complied with, a creditor may thereupon present a petition against a debtor, provided that—

- (1) the debt or debts amount to £50;
- (2) the act of bankruptcy relied on has occurred within the six months preceding the presentation of the petition; and
- (3) the statutory requirements relating to domicile or residence are applicable to the debtor.

Upon the issue of a sequestration order, the property of the bankrupt vests in the official receiver named in the order, and his property is divisible among his creditors in accordance with the provisions of the Act. No creditor to whom the bankrupt is indebted in respect of any debt provable in bankruptcy has any remedy against the property or person of the bankrupt except by leave of the court.

Under Part XI of the Bankruptcy Act 1924–1960, instead of having a sequestration order made against his estate, a debtor may compound with his creditors or assign his estate for their benefit. Under Part XII of the Act, a debtor may enter into a scheme of arrangement. The object of Parts XI and XII of the Act is to allow a debtor and his creditors to enter into an agreement concerning the debts due to the creditors without having a sequestration order made against the debtor.

The Court has power to decide questions of law affecting a bankrupt estate. Questions of fact may be tried before a jury.

The Bankruptcy Act 1924–1960 provides for an Inspector-General in Bankruptcy, who performs such duties as are prescribed. The Act also provides for a Registrar and an Official Receiver to be appointed for each bankruptcy district.

A Registrar in Bankruptcy is controlled by the Court and has such duties as the Attorney-General of the Commonwealth directs, or as are prescribed, and exercises such functions of an administrative nature as are authorized by the Court. He may examine a bankrupt or a person indebted to a bankrupt or having in his possession any of the estate or effects of a bankrupt. Stipendiary magistrates are appointed Deputy Registrars in country districts.

All sequestrated estates are vested in an Official Receiver, who is a permanent officer of the Commonwealth Public Service. His duties are to investigate the conduct, property and transactions of the debtor, and the cause of bankruptcy of a debtor, and to realize and administer the estate of the debtor. In respect of these activities, the Official Receiver is under the control of the Court.

Persons registered by the Court as qualified to act as trustees may be appointed by resolution of the creditors to be trustees of estates. In cases where a registered trustee under a deed of arrangement, composition, or assignment (Parts XI and XII of the Bankruptcy Act) is removed from or vacates his office, the official receiver may be appointed by the Court to complete the administration of the estate, or the Court may direct the official receiver to convene a meeting of the creditors in the estate to enable them to appoint a registered trustee to complete the administration of the estate.

2. **Bankruptcy Proceedings.**—The following table shows the number of bankruptcies of the various types in each State, together with the assets and liabilities of the debtors, during the twelve months ended 30th June, 1960:—

BANKRUPTCY PROCEEDINGS, 1959-60.

State.		Sequestration Orders and Orders for Administration of Deceased Debtors' Estates.	Compositions and Schemes under Part XI.	Deeds under Part XI.	Deeds of Arrangement, Part XII.	Total.
N.S.W.	Number ..	813	6	4	69	892
	Liabilities £	2,127,924	91,372	18,514	979,079	3,216,889
	Assets £	1,148,691	39,689	27,377	785,864	2,001,621
(a) Vic. ..	Number ..	395	3	1	95	494
	Liabilities £	1,225,124	79,645	8,558	705,941	2,019,268
	Assets £	658,281	17,625	2,931	503,450	1,182,287
Q'land	Number ..	211	..	..	23	234
	Liabilities £	512,414	..	..	212,775	725,189
	Assets £	411,579	..	..	219,542	631,121
S. Aust.	Number ..	319	43	9	1	372
	Liabilities £	580,728	142,498	74,549	3,318	801,093
	Assets £	241,745	117,044	86,244	1,705	446,738
W. Aust.	Number ..	119	67	13	..	199
	Liabilities £	367,829	216,370	44,677	..	628,876
	Assets £	129,470	236,726	46,191	..	412,387
Tas. ..	Number ..	91	..	1	4	96
	Liabilities £	297,344	..	15,680	60,222	373,246
	Assets £	133,846	..	13,462	20,722	168,030
N.T. ..	Number ..	1	..	..	..	1
	Liabilities £	14,880	..	..	..	14,880
	Assets £	15,077	..	..	..	15,077
Australia	Number ..	1,949	119	28	192	2,288
	Liabilities £	5,126,243	529,885	161,978	1,961,335	7,779,441
	Assets £	2,738,689	411,084	176,205	1,531,283	4,857,261

(a) Includes the Australian Capital Territory.

For purposes of comparison, the two tables which follow show Australian figures in respect of each of the various types of bankruptcy, and State figures in respect of all types of bankruptcy for the past five years.

Until 1954-55, the bankruptcy year ended on 31st July. Thereafter it has ended on 30th June. Figures for 1955-56, therefore, cover only eleven months.

BANKRUPTCY PROCEEDINGS: AUSTRALIA.

Year.		Sequestration Orders and Orders for Administration of Deceased Debtors' Estates.	Compositions and Schemes under Part XI.	Deeds under Part XI.	Deeds of Arrangement, Part XII.	Total.
1955-56 (a)	Number ..	798	80	14	120	1,012
	Liabilities £	2,167,986	541,666	110,541	832,635	3,652,828
	Assets £	1,082,492	459,242	81,000	856,009	2,478,743
1956-57	Number ..	1,200	126	32	171	1,529
	Liabilities £	3,243,749	501,486	126,140	1,242,834	5,114,209
	Assets £	1,795,830	545,275	126,063	1,196,604	3,663,772
1957-58	Number ..	1,357	120	28	164	1,669
	Liabilities £	3,126,313	707,134	166,367	1,271,353	5,271,167
	Assets £	1,680,868	636,032	107,675	1,315,856	3,740,431
1958-59	Number ..	1,603	131	19	196	1,949
	Liabilities £	4,534,479	608,040	198,730	1,844,512	7,185,761
	Assets £	2,089,842	697,414	145,712	1,594,706	4,527,674
1959-60	Number ..	1,949	119	28	192	2,288
	Liabilities £	5,126,243	529,885	161,978	1,961,335	7,779,441
	Assets £	2,738,689	411,084	176,205	1,531,283	4,857,261

(a) Eleven months.

BANKRUPTCY PROCEEDINGS: STATES.

Year.		N.S.W. (a)	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	Aus- tralia.
1955-56 .. (b)	Number ..	400	206	153	99	120	33	1	1,012
	Liabilities £	1,644,478	712,223	361,636	441,626	373,119	114,159	5,587	3,652,828
	Assets £	1,092,323	522,159	151,954	342,790	276,246	92,642	629	2,478,743
1956-57 ..	Number ..	555	335	152	214	204	66	3	1,529
	Liabilities £	2,262,611	992,246	449,519	598,090	562,808	220,155	28,780	5,114,209
	Assets £	1,441,731	661,268	394,898	352,916	608,424	181,939	22,596	3,663,772
1957-58 ..	Number ..	524	418	181	263	212	70	1	1,669
	Liabilities £	2,010,218	1,021,428	607,109	645,401	793,439	184,552	9,020	5,271,167
	Assets £	1,607,587	676,021	377,379	375,932	578,097	120,778	4,637	3,740,431
1958-59 ..	Number ..	745	394	200	316	206	88	..	1,949
	Liabilities £	2,683,920	1,713,739	832,572	707,481	1,057,664	190,385	..	7,185,761
	Assets £	1,661,574	952,691	656,757	371,488	775,328	109,836	..	4,527,674
1959-60 ..	Number ..	892	494	234	372	199	96	1	2,288
	Liabilities £	3,216,889	2,019,268	725,189	801,093	628,876	373,246	14,880	7,779,441
	Assets £	2,001,621	1,182,287	631,121	446,738	412,387	168,030	15,077	4,857,261

(a) Includes the Australian Capital Territory.

(b) Eleven months.

D. OTHER CIVIL PROCEEDINGS.

The following table shows the civil judgments (excluding those for divorce and bankruptcy) in the higher courts during 1959. The particulars given below include the number and amount of judgments entered by default or confession or agreement.

CIVIL CASES AT HIGHER COURTS, 1959.

Particulars.	N.S.W. (a)	Vic.	Q'land. (b)	S. Aust.	W. Aust. (c)	Tas.	N.T. (b)	A.C.T.	Aus- tralia.
Judgments No.	4,343	11,464	1,262	127	219	578	(d)	132	(d)
Amount Awarded £	(d)	3,118,347	528,172	283,607	356,805	430,127	(d)	139,389	(d)

(a) Excludes judgments signed in the Supreme Court.

(b) Twelve months ended 30th June, 1959.

(c) Judgments signed and entered.

(d) Not available.

§ 5. High Court of Australia.

Under the provisions of Section 71 of the Commonwealth Constitution, the judicial power of the Commonwealth is vested in a Supreme Court called the High Court of Australia and in such other courts as the Parliament creates or invests with Federal jurisdiction. The High Court of Australia possesses both original and appellate jurisdiction. The powers of the Court are defined in the Commonwealth Constitution and in the Judiciary Act 1903-55. The Court consists of a Chief Justice and six other judges. Sittings of the Court are held in the capitals of the various States as occasion requires. The High Court functions as a Court of Appeal for Australia. The following statement shows the transactions of the High Court for 1959 and 1960:—

TRANSACTIONS OF THE HIGH COURT OF AUSTRALIA.

Original Jurisdiction. (a)	1959.	1960.	Appellate Jurisdiction.	1959.	1960.
Number of writs issued	156	183	Number of appeals set down for hearing ..	119	134
Number of cases entered for trial ..	31	40	Number allowed ..	41	49
Judgments for plaintiffs	41	23	Number dismissed ..	59	85
Judgments for defendants	5	4	Otherwise disposed of	16	16
Otherwise disposed of ..	12	48			
Amount of judgments ..	£122,970	£182,693			

(a) Some matters dealt with by the High Court neither originate as writs nor are entered as cases.

During 1959 and 1960, respectively, the High Court dealt also with the following:— appeals from assessments under the Taxation Assessment Act, 30, 130; special cases stated for the opinion of the Full Court, 8, 13; applications for prohibition, etc., 26, 22. The fees collected amounted to £3,349 in 1959 and £4,305 in 1960.

§ 6. Police, Prisons and Prisoners.

1. **Police.**—The primary duties of the police are to prevent crime, to detect and detain offenders, to protect life and property, to enforce the law, and to maintain peace and good order. In addition, they perform many duties in the service of the State, e.g. they act as clerks of petty sessions in small centres, as crown land bailiffs, foresters, mining wardens, and inspectors under the fisheries and various other acts. In metropolitan and large country areas, they also regulate the street traffic. With the exception of the Commonwealth Police Force and the police in the Northern Territory and the Australian Capital Territory, the police forces of Australia are under the control of the State governments, but their members perform certain functions for the Commonwealth government, such as acting as aliens registration officers and policing various acts and regulations.

Women police perform special duties at places where young women and girls are subject to moral danger, control traffic at school crossings, and lecture school children on road safety. They also assist male police as required in the performance of normal police duties.

The strength of the police force in each State and Territory and the number of police officers per 10,000 of population are shown in the following table for the years 1955 to 1959. The figures include traffic police, probationers, cadets, special constables and women police, but exclude parking police, native trackers (natives employed in outlying districts in tracking lost persons and persons wanted by the police), female searchers, wardresses and interpreters. Figures refer to the 30th June, except where otherwise indicated.

STRENGTH OF POLICE FORCES.

As at 30th June—	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aus- tralia.
TOTAL STRENGTH.									
1955	(a) 4,817	(a) 3,109	2,355	1,086	964	471	62	60	12,924
1956	(a) 4,927	(a) 3,392	2,422	1,132	971	481	67	60	13,452
1957	(a) 5,043	(a) 3,709	2,491	1,234	970	507	80	60	14,094
1958	5,130	3,753	2,617	1,351	988	526	76	66	14,507
1959	5,245	3,753	2,678	1,425	1,056	524	102	73	14,856

POPULATION TO EACH POLICE OFFICER.

1955	(a) 732	(a) 813	571	744	683	668	284	558	721
1956	(a) 728	(a) 776	566	738	698	665	273	602	706
1957	(a) 726	(a) 728	561	708	713	647	240	652	689
1958	719	730	542	664	714	638	258	624	679
1959	716	750	538	646	681	653	205	631	677

NUMBER OF POLICEWOMEN.(b)

1955	(a) 37	(a) 34	8	20	9	5	..	2	115
1956	(a) 36	(a) 43	7	23	9	8	..	2	128
1957	(a) 38	(a) 55	7	24	9	10	..	2	145
1958	46	52	9	32	11	9	..	2	161
1959	48	50	9	33	12	8	..	2	162

NUMBER OF NATIVE TRACKERS.(c)

1955	(a) 8	(a) 1	23	..	18	..	29	..	79
1956	(a) 8	(a) 1	25	(d)	7	..	31	..	72
1957	(a) 8	(a) 1	23	(d)	3	..	30	..	65
1958	7	1	23	(d)	4	..	31	..	66
1959	5	1	24	(d)	4	..	35	..	69

(a) Figures refer to 31st December of year shown. (b) Included in total strength shown above.
(c) Not included in total strength shown above. (d) One native tracker, who is paid a small weekly retainer and is supplied with rations, is continually on call.

2. **Prisons and Prison Accommodation.**—The table below shows the number of prisons in each State and the accommodation therein in 1959. All figures refer to 30th June, except where otherwise indicated.

PRISONS AND PRISON ACCOMMODATION, 1959.

Particulars.	N.S.W.	Vic. (a)	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Aus- tralia.
Prisons	18	11	7	16	19	1	2	74
Accommodation	2,768	2,046	929	920	900	244	59	7,866

(a) 31st December.

There is no gaol in the Australian Capital Territory, but there is a lock-up consisting of five cells attached to the police station at Canberra, and another lock-up at Jervis Bay, where offenders are held while awaiting trial or serving short sentences not exceeding one week imposed by a Magistrate's Court.

3. **Convicted Prisoners.**—The number of convicted prisoners at 30th June of each of the years 1955 to 1959 and the proportion per 10,000 of the population are shown in the following table. The figures exclude aborigines, except for New South Wales and Victoria.

CONVICTED PRISONERS.

At 30th June—	N.S.W. (a)	Vic. (b)	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Aus- tralia.
NUMBER.								
1955 ..	2,238	1,229	580	413	386	163	50	5,059
1956 ..	2,860	1,462	612	457	482	149	21	6,043
1957 ..	3,050	1,441	630	569	488	162	29	6,419
1958 ..	3,126	1,397	799	526	527	196	32	6,603
1959 ..	2,895	1,539	868	577	477	223	28	6,607
NUMBER PER 10,000 OF POPULATION.								
1955 ..	6.4	4.8	4.3	5.0	5.7	5.2	28.4	5.5
1956 ..	8.0	5.6	4.5	5.4	7.1	4.7	11.5	6.4
1957 ..	8.3	5.3	4.9	6.6	7.1	5.0	15.8	6.6
1958 ..	8.5	5.1	5.6	5.9	7.5	5.8	16.3	6.7
1959 ..	7.7	5.5	6.0	6.3	6.6	6.5	13.4	6.6

(a) Includes the Australian Capital Territory.

(b) At 31st December of year shown.

§ 7. Cost of Administration of Law and Order.

1. **Expenditure by the States.**—The tables below show the net expenditure (i.e., gross expenditure less receipts from fees, fines, recoups for services rendered, etc.) from Consolidated Revenue during 1959–60 in connexion with the administration of justice, police and prisons in each State.

In South Australia, the receipts for legal fees and registrations exceed the expenditure under "Justice". Because of differing legislative and administrative arrangements in the various States, the activities covered by the figures shown are not exactly the same in each State. Small differences also result from differing accounting practices. However, the figures shown for individual States are comparable from year to year.

NET EXPENDITURE ON LAW AND ORDER, 1959-60.

State.	Net Expenditure.			Per Head of Population.		
	Justice.	Police.	Prisons.	Justice.	Police.	Prisons.
	£.	£.	£.	s. d.	s. d.	s. d.
New South Wales ..	1,198,120	7,828,364	1,218,052	6 4	41 3	6 5
Victoria ..	547,028	6,336,402	908,408	3 10	44 5	6 5
Queensland ..	113,330	4,062,471	393,717	1 7	56 1	5 5
South Australia ..	—205,791	2,136,275	347,009	—4 5	45 9	7 5
Western Australia ..	58,352	1,744,713	257,955	1 7	48 1	7 1
Tasmania ..	211,430	836,957	157,411	12 2	48 2	9 1
Total ..	1,922,469	22,945,182	3,282,552	3 10	45 2	6 6

2. **Commonwealth Expenditure.**—(i) *Attorney-General's Department.* The expenditure shown in the previous table is that incurred by the State Governments. Since the functions of the Commonwealth Government in the administration of law and order differ considerably from those of the States, precise comparison between Commonwealth and State expenditure in this field is not possible. The following table, however, shows the gross expenditure by the Commonwealth Attorney-General's Department during the year 1959–60 on the main services performed by that department.

**EXPENDITURE BY THE COMMONWEALTH ATTORNEY-GENERAL'S
DEPARTMENT, 1959-60.**
(£.)

Item.	Gross Expenditure.
Administration	300,813
Bankruptcy	196,668
Commonwealth Investigation Service	105,648
Industrial Registrar's Branch	195,182
Court Reporting Branch	153,743
Crown Solicitor's Office	413,241
High Court	147,967
Industrial Court	85,491
Judges' Salaries and Pensions	15,287
Legal Service Bureau	65,165
Miscellaneous Services	22,726
Patents, Trade Marks and Designs	473,811
Peace Officer Guard	161,041
Commonwealth Police Force	14,214
Rent	56,509
Repairs and Maintenance	27,322
Total	2,434,828

In addition, £158,991 was spent by the Attorney-General's Department on capital works and services.

The items of expenditure shown in the table above are gross. Receipts of the Attorney-General's Department for 1959-60 aggregated £670,048, of which revenue on account of Patents, Trade Marks and Designs, and Copyright amounted to £398,633, Bankruptcy £113,305, Court Reporting Branch £111,520, Fees, Fines and Costs of Court £32,755, and Miscellaneous £13,835.

Expenditure and receipts of the Attorney-General's Department for the five years 1955-56 to 1959-60 is shown in the following table:—

**EXPENDITURE BY THE COMMONWEALTH ATTORNEY-GENERAL'S
DEPARTMENT.**
(£.)

Year.	Gross Expenditure.	Receipts.	Net Expenditure.
1955-56	1,896,741	407,474	1,489,267
1956-57	1,952,184	451,758	1,500,426
1957-58	1,984,776	516,090	1,468,686
1958-59	2,100,388	572,771	1,527,617
1959-60	2,434,828	670,048	1,764,780

(ii) *Police and Prisons.* Expenditure by the Commonwealth Government on police in the Australian Capital Territory (excluding the Commonwealth Police Force shown above), and police and prisons in the Northern Territory for the five years 1955-56 to 1959-60 is shown in the following table.

**EXPENDITURE ON POLICE AND PRISONS IN THE NORTHERN TERRITORY
AND THE AUSTRALIAN CAPITAL TERRITORY.**
(£.)

Year.	Northern Territory.	Australian Capital Territory.(a)
1955-56	145,387	98,720
1956-57	136,000	109,710
1957-58	208,099	142,462
1958-59	227,031	137,894
1959-60	262,261	168,952

(a) Expenditure on police only. There is no prison in the Australian Capital Territory.

CHAPTER XVII.

PUBLIC HEALTH.

A. STATE GOVERNMENT ACTIVITIES

(including activities of the Commonwealth Government in the Northern Territory and the Australian Capital Territory).

§ 1. Public Health Legislation and Administration.

1. **New South Wales.**—The Department of Public Health comes under the jurisdiction of the Minister for Health, with an Under-Secretary as Permanent Head of the Department for administrative purposes.

There is also a Director-General of Public Health and Chief Medical Adviser to the Government, who is *ex officio* President of the Board of Health and Chairman of the Nurses' Registration Board.

The Director of State Psychiatric Services is responsible for the administration of that part of the Mental Health Act relating to the care and treatment of mental patients.

The Department's activities embrace all matters relating to public health and the greater part of the general medical work of the Government. These include:— (a) Supervision of the work of local authorities (municipal and shire councils) in relation to public health matters connected with the following Acts—Public Health Act, Noxious Trades Act and Pure Food Act; (b) Scientific divisions (Government Analyst, Microbiological Laboratory, and Division of Occupational Health); (c) Tuberculosis and Epidemiological Divisions; (d) Medical Officers of Health at Sydney, Broken Hill, Newcastle, Wollongong, Bathurst and Lismore; (e) State hospitals and homes and State sanatoria; (f) Mental hospitals; (g) Public hospitals (Hospitals Commission); (h) Maternal and baby welfare (baby health centres); (i) School medical and dental services; and (j) Publicity, nutrition and library services.

2. **Victoria.**—The Department of Health, which is constituted under the Health Act 1958, contains, in addition to the central administration, four branches, the General Health Branch, the Maternal and Child Hygiene Branch, the Tuberculosis Branch and the Mental Hygiene Branch. The work of these branches is described below.

(a) *The General Health Branch.* The branch, which, *inter alia*, is the administrative branch for the Commission of Public Health, protects or promotes the health of the community in the following ways:—

The Engineering Division scrutinizes from a public health point of view the plans of all public buildings and provincial sewerage installations and makes periodical inspections. Other activities include prevention of stream pollution and supervision of abattoirs and cattle sale yards.

The Poliomyelitis Division provides a comprehensive orthopaedic, physiotherapy and respirator service for all eligible patients and carries out rehabilitation in conjunction with the Commonwealth Government. Facilities developed for poliomyelitis are now being used for other neurological disorders. The Division is also concerned with the Salk immunization campaign being undertaken in Victoria. Through the municipalities, immunization against poliomyelitis, diphtheria, smallpox, whooping cough, and tetanus is encouraged and supervised.

Prevention and control of infectious diseases are functions of this Branch, which also sponsors original research into virus diseases and epidemiological investigations throughout Victoria.

The Venereal Diseases Division provides a centrally situated headquarters where the use of modern remedies is effecting a general improvement in the standard of treatment.

Standards of quality and purity of foods and drugs are fixed by the Food Standards Committee and are administered and enforced by both departmental and municipal health inspectors.

Investigations into occupational hazards to the health of workers, the treatment and incidence of occupational diseases, and research into the effects of toxic substances used in industry are conducted by the Industrial Health Division.

Subsidies are granted to municipalities to provide meals for pensioners, to clubs for elderly citizens, and to emergency housekeeper services.

Other services operated by the Branch are: registering plumbers and gasfitters; providing free travel to hospital for people with limited incomes; analysing food, drink, water and sewerage effluents; registering cinematograph operators; administering the Cemeteries Acts and the Clean Air Act; and advising industry on health hazards associated with handling radioactive substances.

(b) *The Maternal and Child Hygiene Branch.* This branch is concerned with pre-natal hygiene, the development of pre-school services, and the school medical and dental services.

(c) *The Tuberculosis Branch.* The Tuberculosis Branch is concerned with the prevention of tuberculosis and the treatment and rehabilitation of tubercular patients.

(d) *The Mental Hygiene Branch.* This Branch is controlled by the Mental Hygiene Authority and consists of institutions for in-patient care and out-patient's clinics and other services necessary for a comprehensive community mental health programme. Since the appointment of the Authority in 1951, existing buildings have been remodelled and new ones provided. Services have been re-organized to conform with modern requirements.

(e) *The Cancer Institute.* This Institute was incorporated in 1948 and provides, *inter alia*, facilities for research and investigation related to the causes, prevention, diagnosis and treatment of cancer and allied conditions. The policy of the Cancer Institute Board has been to ensure the provision of maximum clinical service to patients and to carry out related research. Clinics have been opened in a number of country centres in co-operation with the local hospital committees.

Under an agreement with the Government of Tasmania, clinics are also conducted at Launceston and Hobart.

A 4,000 kV linear accelerator was installed in Melbourne in 1956 and a Cobalt 60 unit in Launceston in 1957. Another 4,000 kV linear accelerator is expected to come into operation in Melbourne early in 1961. During the twelve months ended 30th June, 1960, out-patient attendances were 103,365, involving 7,327 individual patients. One hundred in-patient beds are available.

3. **Queensland.**—(i) *General.* The Health Acts 1937 to 1960 are administered by the Director-General of Health and Medical Services subject to the Minister for Health and Home Affairs. A central staff controls the following divisions:—

(a) *Division of Public Health Supervision.* This Division is controlled by the Deputy Director-General of Health and Medical Services, and comprises separate sections of communicable disease control, environmental sanitation, food and drug control, enthetic, (venereal) diseases, hookworm control and Hansen's disease (leprosy) control. Free treatment of venereal diseases is offered at the Department's clinics in Brisbane and at any public hospital. Free immunization against poliomyelitis, diphtheria, whooping cough and tetanus is offered by most of the local authorities. The majority of school children have been immunized against diphtheria and poliomyelitis.

(b) *Division of Tuberculosis.* A central chest clinic in Brisbane offers Mantoux tests, X-ray examinations, and inoculations of Mantoux negative reactors free of charge, and this service is extensively used. Similar clinics are situated at the Cairns, Rockhampton, Thursday Island, Toowoomba, and Townsville district hospitals. Mobile X-ray units visit country districts. Children in the final grade of primary schools are now being Mantoux-tested and given B.C.G. vaccine. The compulsory X-ray examination of all persons over the age of 14 years has commenced in Northern Queensland and will be applied progressively to other areas of the State.

(c) *Division of Industrial Medicine.* The services of this division are available both to industry and the trade union movement for the prevention of industrial hazards. This division is particularly interested in occupational diseases, such as silicosis and lead and other poisoning, and advises on industrial problems such as lighting, ventilation, fatigue, air pollution and the use of radio-active isotopes.

(d) *Division of Maternal and Child Welfare.* This Division offers supervision and advice on the rearing and health of infants and pre-school children at 245 baby health centres throughout the State. Outlying centres are visited by air or by special rail car. Homes for in-patient treatment of infants with feeding problems have been established at Brisbane, Toowoomba, Ipswich and Rockhampton.

(e) *Division of School Health Services.* This Division comprises the Chief Medical Officer, School Health Services, and a staff of doctors, dentists and visiting school nurses. Every child has a medical examination at least once in three years.

(f) *Division of Mental Hygiene.* The Director is responsible for the care and treatment of mentally sick patients in the State's four mental hospitals at Brisbane, Toowoomba, Ipswich and Charters Towers.

(g) *Division of Laboratory Services.* Two laboratories—the Laboratory of Microbiology and Pathology and the Government Chemical Laboratory—are maintained to ensure the purity of a wide range of foodstuffs and materials. The former also offers a service in clinical pathology to institutions, country hospitals and private doctors, and provides a medico-legal service for the whole State.

(ii) *Hospitals.* All public hospitals operate under the district system, which provides for the constitution of hospitals regions and hospitals districts, and a hospitals board for each district. The State is divided into 11 hospitals regions with a base hospital for each region. Each region comprises a number of hospital districts, the purpose of the regional scheme being to co-ordinate the public hospitals in the region with the base hospital. The administration of the hospital services, including public dental services, in each hospitals district is vested in the hospitals board, which comprises not less than four members nor more than eight members appointed by the Governor-in-Council, and one member elected by the component local authorities. During the year 1958-59, there were 57 hospitals boards controlling 131 public hospitals. In addition, five other general hospitals received aid from the Government, and there were two institutions for the treatment of Hansen's disease.

An institution for the treatment of Hansen's disease in aboriginals is maintained at Fantome Island near Townsville. Modern therapy has rendered the Peel Island institution unnecessary and patients are now treated at the South Brisbane Hospital.

Private hospitals in Queensland are controlled under the provisions of the Health Acts, 1937 to 1955, and the Private Hospitals Regulations, 1937. There are 56 private hospitals licensed in the State, containing 1,712 beds and cots, of which 21, containing 784 beds and cots, are in Brisbane.

4. *South Australia.*—The Department of Public Health embraces the activities of the Central Board of Health, the Food Drugs Advisory Committee, the Radiological Advisory Committee, the School Health Services (comprising School Medical and Dental Services and Deafness Guidance Clinic), Poliomyelitis Services and the public health aspect of the control of tuberculosis, including the State X-ray Health Survey, under the control of the Director of Tuberculosis.

The Central Board of Health consists of five members, three of whom (including the chairman) are appointed by the Governor, while one is elected by metropolitan local boards and one by all other local boards. The Central Board of Health administers the Health, Food and Drugs, Dangerous Drugs, Noxious Trades, Bakehouses Registrations and Early Notification of Birth Acts. The Board is also concerned to some degree with Acts relating to local government, abattoirs and cremation. Other legislation administered by the Department of Public Health relates to venereal diseases and vaccination.

The Health Act 1935-1956 constitutes every municipal council and every district council a local board of health for its municipality or district. There are 143 local boards under the general control and supervision of the Central Board. Under the Food and Drugs Act each local board is constituted the local authority for its respective district except in the metropolitan area, for which the Metropolitan County Board is the local authority.

5. *Western Australia.*—Health services are provided under the Health Act 1911-1959. The central authority is the Department of Public Health, controlled by a Commissioner, who must be a qualified medical practitioner. The State is divided into local government areas, each administered by a municipal council or a road board. All local government authorities have health administration powers.

In any emergency, the Commissioner may exercise all the powers of a health authority in any part of the State.

Features of legislation since 1947 are as follows:—(a) Act No. 70 of 1948 gives power to control sufferers from tuberculosis and established a Tuberculosis Control Branch; (b) Act No. 11 of 1952 gives wide powers to regulate the sale and use of pesticides; (c) Act No. 34 of 1954 provides for the licensing of manufacturers of therapeutic substances; (d) Act No. 21 of 1957 gives power to require the notification of any prescribed condition of health in addition to infectious diseases; (e) Act No. 17 of 1956 gives local authorities power to provide or subsidize centres for the accommodation and care of the aged; (f) Act No. 30 of 1958 provides for the establishment of the Health Education Council with the object of promoting and improving the health of the people of Western Australia; and (g) Act No. 43 of 1958 provides for the establishment of the Cancer Council of Western Australia with the objects of co-ordinating, promoting and subsidizing cancer research.

6. *Tasmania.*—The Department of Health Services is under the jurisdiction of the Minister of Health. The Department consists of a Headquarters and three Divisions. The Director-General of Health Services is the permanent head of the Department, and he administers the Department through Directors of each of the three divisions (Division of Public Health, Division of Mental Health, and Division of Tuberculosis) and through several other clinical directors and other senior officers attached to the Headquarters of the Department, including the Directors of Orthopaedics, Pathology and Anaesthetics, and the Government Analyst and Chemist.

In addition to his responsibility for the functioning of the Department as a whole, the Director-General of Health Services directly administers the various branches of the work performed by Headquarters. This is concerned particularly with the following:—

- (a) The Administration of the Hospital Services throughout the State.
- (b) The District Medical Service.
- (c) The Hospital and Government Nursing Service, which includes the administration of 27 District Nursing Centres throughout the State.
- (d) Legislation concerned with Health and allied matters and the Nurses' Registration Board.
- (e) The Health Education Council and National Fitness Council.
- (f) Specialist Medical Services.
- (g) Statistical classification of Diseases and Injuries.
- (h) Liaison with other States and the Commonwealth Health Department, and all matters dealing with the maintenance of Departmental property and the appointments and salaries of Departmental staff.

The Division of Public Health administers laws relating to sanitation, notification of infectious diseases, and food and drug legislation. The Division also controls the school medical and dental services and child health services.

The Division of Mental Health is responsible for the supervision of mental hospitals, the consultative diagnosis and treatment of psychiatric cases, the treatment and care of the mentally ill, the treatment and care of inebriates, the treatment and custody of sexual offenders, the treatment of psychopathic cases, and the care and treatment of retarded children. The Tuberculosis Division is concerned with the prevention (including B.C.G. vaccination), detection, notification, examination and treatment of all forms of tuberculosis occurring in the State. This Division also conducts the compulsory mass chest-X-ray examinations and maintains chest hospitals and diagnostic clinics.

7. *Northern Territory.*—The Commonwealth Department of Health provides hospital, health and medical services in the Northern Territory.

Four general hospitals have been established. The Darwin Hospital has accommodation for 253 in-patients, Alice Springs Hospital 125, Katherine Hospital 36, and Tennant Creek Hospital, 34. The treatment of Hansen's disease (leprosy) is carried out at East Arm Settlement. A full range of ancillary services is available at the Darwin hospital, which serves as a base hospital for the Territory. Dental clinics have been set up at Darwin and Alice Springs.

Medical and dental services to outback areas are provided by road and air. Aircraft used in the Territory are two De Havilland Doves stationed at Darwin, and one Drover at Alice Springs. They are staffed and serviced by Trans-Australia Airlines and are extensively

used in ambulance and survey medical work. At Alice Springs, doctors of the Northern Territory provide the medical services to the Royal Flying Doctor Service (South Australian) base.

A section of the Department of Health undertakes continuous investigation into native health.

School doctors and dentists travel throughout the Territory to carry out diagnosis and treatment. Public health services are provided, and health inspectors visit all settlements periodically.

Darwin, as a first port of entry for oversea aircraft and shipping, has a quarantine station.

8. **Australian Capital Territory.**—The Public Health Ordinance 1928–1951 places under the control of the Minister for Health all matters relating to public health and hygiene in the Australian Capital Territory. A Medical Officer of Health and a number of Health Inspectors are appointed to administer and police this ordinance. The Canberra Community Hospital is administered, subject to the Minister for Health, by a board consisting of five elected members and three members appointed by the Minister. The hospital has accommodation for 255 in-patients. A district nursing service, administered by the Commonwealth Department of Health, was established in 1950 to provide a home-nursing service for the sick and aged. The service is available at the request of a registered doctor.

§ 2. Supervision and Care of Infant Life.

1. **General.**—The number of infant deaths and the rate of infant mortality for the five years 1955 to 1959 are given in the following table. Further information regarding infant mortality (including information for each State as a whole and for the Territories) will be found in Chapter X.—Vital Statistics (*see* page 359).

INFANT DEATHS AND DEATH RATES.

State.	Metropolitan.					Remainder of State.				
	1955.	1956.	1957.	1958.	1959.	1955.	1956.	1957.	1958.	1959.

NUMBER OF INFANT DEATHS.

New South Wales	814	784	795	792	842	1,036	993	1,009	912	990
Victoria ..	549	630	703	718	758	486	498	516	460	562
Queensland ..	210	224	224	209	212	446	513	508	448	509
South Australia ..	207	193	202	241	225	224	184	201	208	197
Western Australia	187	156	168	167	161	186	228	189	193	184
Tasmania ..	55	53	51	63	53	134	117	119	104	149
Total(a) ..	2,022	2,040	2,143	2,190	2,251	2,512	2,533	2,542	2,325	2,591

RATE OF INFANT MORTALITY.(b)

New South Wales	22.76	21.33	20.40	20.03	20.91	26.81	25.49	24.92	22.52	24.39
Victoria ..	16.68	18.13	19.39	19.41	20.09	20.75	21.07	21.32	18.95	22.93
Queensland ..	18.60	19.93	18.88	17.83	17.23	21.17	24.23	23.20	20.23	21.85
South Australia ..	20.13	18.47	18.85	21.62	19.96	27.27	21.61	22.79	23.37	21.66
Western Australia	22.50	17.89	19.63	18.44	18.28	22.37	27.82	22.59	24.75	22.16
Tasmania ..	23.10	22.18	19.97	24.51	20.18	23.48	20.48	20.23	17.34	24.84
Total(a) ..	20.03	19.56	19.68	19.81	19.92	23.84	23.85	23.18	21.14	23.18

(a) Excludes Territories.

(b) Number of deaths of children under one year of age per 1,000 live births registered.

Because the health of mothers and infants depends largely on pre-natal attention as well as after-care, government and private organizations provide instruction and treatment for mothers before and after confinement. The health and well-being of mother and child are looked after by baby health centres, baby clinics, crèches, etc.

In all States, Acts have been passed with the object of supervising the conditions of infant life and reducing the rate of mortality. Departments control the boarding-out of the wards of the State to suitable persons, and wherever possible the child is boarded out to

its mother or to a near female relative. Stringent conditions regulate the adoption, nursing and maintenance of children placed in foster-homes by private persons, while special attention is devoted to the welfare of ex-nuptial children.

Under the provisions of Part V. of the Social Services Act 1947–1960, a sum of £15 is payable to the mother in respect of each confinement at which a living or viable child is born if the mother has no other children under 16 years of age. Where there are one or two other children under 16, the amount payable is £16, and where there are three or more other children under 16, the amount payable is £17 10s. Where more than one child is born at a birth, the amount of the allowance is increased by £5 in respect of each additional child born at that birth. More detailed information concerning maternity allowances is given in Chapter XVIII.—Welfare Services, page 697.

2. *Nursing Activities.*—(i) *General.* In several States, the Government maintains institutions which provide treatment for mothers and children, and, in addition, subsidies are granted to various associations engaged in welfare work.

(ii) *Details by States.* In earlier issues of the Official Year Book (*see* No. 22, pp. 515–16), information concerning the activities of institutions in each State is given.

(iii) *Summary.* The following table gives particulars of the activities of Baby Health Centres and Bush Nursing Associations for the year 1960.

BABY HEALTH CENTRES AND BUSH NURSING ASSOCIATIONS, 1960.

Heading.	N.S.W.	Vic.	Qld. (a)	S. Aust. (a)	W.Aust.	Tas.	N.T.	A.C.T. (a)	Aus- tralia.
Baby Health Centres—									
Metropolitan No.	114	164	68	93	34	19	..	11	503
Urban-Provincial and Rural No.	251	444	177	140	25	77	2	..	1,116
Total No.	365	608	245	233	59	96	2	11	1,619
Mobile Units—									
No.	..	8	1	4	4	..	..	..	17
Attendances at Centres No.	1,032,056	1,335,435	478,096	233,990	221,619	136,552	6,705	35,750	3,480,203
Visits paid by Nurses No.	(b)	158,902	28,550	24,850	23,480	75,399	3,547	3,835	(b)
Bush Nursing Associa- tions—Number of Centres	26	59	7	30	13	25	..	..	160

(a) Year ended 30th June.

(b) Not available.

In the last thirty years, the number of attendances at the Baby Health Centres has nearly quadrupled. The numbers of attendances, at five-year intervals, since 1930 were as follows:—1930, 919,893; 1935, 1,355,306; 1940, 2,035,299; 1945, 2,927,764; 1950, 3,049,375; and 1955, 3,099,233. During the year 1960, the number of attendances was 3,480,203.

§ 3. Medical Inspection of School Children.

1. *General.*—Medical and dental inspection of school children is carried out in all States, in the Northern Territory and in the Australian Capital Territory. In some States, travelling clinics have been established to deal with dental defects.

2. *New South Wales.*—(i) *School Medical Service.* Doctors of the School Medical Service examine children attending all schools administered by the Department of Education and the majority of other schools in the State. They make annual visits to schools in the metropolitan, Newcastle and Wollongong areas, and in Armidale, Bathurst, Lismore and district, Grafton and district, and Cootamundra, and examine children in kindergarten or 1st grade in primary schools, and 1st and 4th years in secondary schools. Children in other classes are examined or reviewed as necessary. The vision and hearing of pupils in 4th grade are re-tested.

In country areas, school children are examined by local medical practitioners according to the normal practice of the School Medical Service and under the supervision of local Municipal and Shire Councils. During the first examination, all children at these schools are examined, and following that, the same procedure is adopted as in the metropolitan area. This scheme is growing and the majority of Councils in New South Wales have expressed interest and are endeavouring to arrange with local medical practitioners to have the scheme introduced.

If treatment is necessary, the parent is informed and, if possible, is called in for interview. In the metropolitan, Newcastle, Wollongong, Lismore and Grafton areas, school nurses follow up these cases with the object of persuading parents to seek medical advice for the children.

As well as examining school children, the medical officer examines the sanitary arrangements at each school. Bush nurses act as school nurses in schools at or near the bush nursing centres.

Medical officers of this service examined 135,513 children in 1959. Notifiable defects were found in 26.9 per cent. of the children examined.

Various surveys of school children are undertaken from time to time, e.g. hearing surveys, hookworm surveys, height-weight surveys, nutrition surveys, and investigations to determine the incidence of enlargement of the thyroid gland, defective vision, and postural defects.

Six child guidance clinics in the metropolitan area and one at Newcastle operate under the administration of the School Medical Service. One clinic functions at the Yasmar Boys' Shelter and deals exclusively with cases which come before the Children's Courts. Each clinic is staffed by a psychiatrist, a psychologist and social workers.

(ii) *School Dental Service.* There are 28 dental officers and 23 dental assistants of the staff of the Division of Dental Services, Department of Public Health, providing a School Dental Service for New South Wales school children.

At the beginning of the 1961 school year, nine fully-equipped mobile dental clinics were in service in country areas. The clinics are staffed by a dentist and assistant. They visit country schools and provide treatment free of charge.

Arrangements are proceeding for the erection of five fixed clinics, each of two surgeries, waiting room, office and separate washrooms for patients and staff. These will be located at Newcastle and Wollongong, and at Hurstville, Parramatta and Naremburn in the Sydney metropolitan area.

When the clinics are completed, free treatment may be obtained for those school children whose parents desire it. It will be necessary to restrict the treatment to children of 6, 7 and 8 years of age although children of any age may obtain free treatment of an emergency nature.

A system involving examination only was commenced in September, 1960, whereby as many primary school children as possible are encouraged to seek private treatment.

A well-equipped dental surgery is in continuous operation at the Stewart House Preventorium, staffed by officers of the Division.

A free dental service is provided for children living west of the Darling River in co-operation with the Royal Flying Doctor Service.

In country areas where no adequate dental facilities exist, school children of all ages are eligible for treatment in the mobile clinics.

In 1960, 49,812 school children were examined and 13,720 were treated in 45,778 visits; 21,136 extractions, 49,032 fillings and 53,434 other treatments were completed. The parents of a further 19,594 children were notified of dental defects requiring treatment.

3. *Victoria.*—School Medical Services are conducted in close association with the Education Department. All children between the ages of 5 and 14 years attending State and registered primary schools are examined regularly, and any disabilities found in the children are brought to the notice of their parents. School nurses, under medical direction, visit the homes and schools. Children suffering from physical and mental disabilities are recommended to attend appropriate schools or classes by the medical officers. Some special training for the handicapped is given.

The School Dental Service has a staff of 40 dental officers and provides dental attention for children in parts of the metropolitan area at one of three dental centres and for a number of country districts by means of 15 mobile units. It also provides dental service for children's institutions in and around Melbourne and certain provincial centres. This service is now providing dental attention for some 80,000 primary school children.

4. **Queensland.**—During 1959–60, medical officers and nurses examined 99,206 school children, referring children with defects to their own doctors. In western Queensland, local doctors act as part-time ophthalmic surgeons. In north Queensland, two school sisters assist in the control of hookworm. Advice is given on school sanitation, infectious diseases in schools, and health education.

During 1959–60, school dentists gave treatment to 9,578 school children whose parents could not afford private treatment. The treatment was carried out at four rail dental clinics and with portable equipment at schools. In addition, school children are treated at hospital dental clinics in the larger towns.

5. **South Australia.**—Children in State schools are examined while in Grades 1, 4 and 7 in the primary schools, and in their second and fourth years in secondary schools. Efforts are made to visit country schools every three years and all the children are examined. Students who wish to become teachers are examined on appointment as Leaving Teaching Scholars while still attending secondary schools, again immediately prior to entering the Teachers' College and finally when they leave the College to take up teaching. Courses of lectures in hygiene and in first aid are given to all College students and, in addition, domestic arts students are lectured on home nursing.

During 1959, 67,698 children were examined by medical officers in 201 country and 110 metropolitan schools. Of these, 5,243 required treatment for defective vision, 943 for defective hearing, and 14,192 for dental disorders.

There were 949 children examined at the deafness guidance clinic during 1959. Of the 505 new patients, 351 were referred to doctors or hospitals for treatment.

Educational work was assisted by talks to mothers' clubs and interviews with parents by doctors and dentists, and by home visits and interviews by nurses.

6. **Western Australia.**—The School Medical Service of the State Health Department employs seven full-time medical officers for schools. During 1959, these officers examined 48,321 children (metropolitan 31,289, country 17,032). The 274 schools visited comprised—metropolitan, 160 (state schools 111, convents 49), and country, 114 (state schools 89, convents 25). The aim is to examine each school child three times in his school career.

During 1959, the 15 full-time dentists employed by the School Dental Service visited 13 metropolitan schools, 143 country schools, 13 orphanages and 10 native missions. The number of children examined was 12,595. With the consent of their parents, 7,079 of these were treated. The number of dental vans operating was 12. The cost of the School Medical Service and the School Dental Service for 1958–59 was £77,413.

7. **Tasmania.**—During 1959, two full-time and three part-time medical officers examined school children in State and private schools, and 14 full-time and one part-time sisters visited homes and schools. Of the 19,976 children examined by medical officers, 6,887 were found to have defects.

Twelve school dental officers were employed during 1959, operating from surgeries at Hobart, Launceston, Burnie and Devonport, and from mobile clinics in other districts. A full-time dental surgeon is in charge of each surgery or clinic. During the year, there were 17,884 new visits to the school dentists and 28,400 repeat visits.

The cost of school medical and school dental services for the year ended 30th June, 1959, was £78,503.

8. **Northern Territory.**—(i) *School Medical Service.* The Schools Medical Officer makes routine physical examinations of all children attending both pre-school centres and the schools which come under the supervision of the Assistant Supervisor of Education in the Northern Territory. The only children not examined by him are those at the Native Welfare Settlement School, i.e. full-blood aborigines, who are examined during native health surveys.

An immunization clinic and a paediatric clinic are held each week at the Darwin Hospital.

(ii) *School Dental Service.* A special service for school and pre-school children is available in Darwin.

9. *Australian Capital Territory.*—The Commonwealth Department of Health is responsible for health aspects of child welfare in the Australian Capital Territory. These include a school medical service carried out by a medical officer and a trained nurse who are full-time officers of the Health Department.

Routine examinations are carried out at all schools, public and private, within the Territory. The programme is planned to provide for examinations, at the ages of six, eight and 12 years. During 1960, the total number of children examined in these age groups was 3,647.

Examinations of children attending Pre-School Centres are made according to the time available, an attempt being made to cover children aged 4½ to five years. In 1960, lack of time prevented full coverage but 206 pre-school children were examined.

In addition, an immunization programme for the protection of children aged from six months to 12 years against diphtheria, whooping cough and tetanus is carried out by the school doctor. Injections given during 1960 numbered 5,997.

The officer-in-charge of the school service also acts as medical adviser to the Mothercraft Council and at the Baby Health Centres.

The school dental service is staffed by nine dentists and ten dental nurses, and has operated since 1950. Free dental treatment is available to children at primary and infants' schools and pre-school centres. Approximately 90 per cent. of children accept treatment. During 1960, 7,666 children were examined, involving 21,448 visits by these children.

§ 4. Inspection of Food and Drugs for Sale.

Public health legislation in force in all States provides for the inspection of foods and drugs, with the object of ensuring that all goods sold shall be wholesome, clean, and free from contamination or adulteration, and that all receptacles, places and vehicles used for their manufacture, storage, or carriage shall be clean.

§ 5. Supervision of Dairies, Milk Supply, etc.

Earlier issues of the Official Year Book (*see* No. 22, p. 498), refer to the legislation in force in the various States to ensure the purity of dairy produce.

§ 6. Disposal of Dead by Cremation.

The first crematorium in Australia was opened in South Australia in 1903. At 31st December, 1960, there were seventeen crematoria in Australia, situated as follows:—New South Wales, 7; Victoria, 3; Queensland, 2; South Australia, 1; Western Australia, 2; Tasmania, 2.

There is no crematorium in the Northern Territory or in the Australian Capital Territory.

The following table shows the number of cremations in each State for each of the years 1956 to 1960:—

CREMATIONS.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
1956	12,358	6,733	3,341	514	1,201	551	24,698
1957	12,189	6,849	3,250	539	1,239	688	24,754
1958	12,190	6,913	3,308	620	1,363	622	25,016
1959	13,352	7,549	3,678	779	1,433	666	27,457
1960	13,809	7,839	3,709	915	1,526	692	28,490

B. COMMONWEALTH GOVERNMENT ACTIVITIES.**§ 1. General.**

At the time of federation, the only health function given to the Commonwealth Government under the Constitution was the power to make laws with respect to quarantine. All other health powers remained with the State Governments. Under this power, the systems of State quarantine formerly in operation were abolished with the passing of the Quarantine Act 1908, and a branch of the Department of Trade and Customs, under the control of a Director of Quarantine, was created on 1st July, 1909.

The Commonwealth Department of Health was formed in 1921 by the extension and development of the quarantine service, the Director of Quarantine becoming the Director-General of Health. It had certain other functions in the field of public health. An amendment to the Constitution in 1946 gave the Commonwealth power to make laws with respect to pharmaceutical, hospital and sickness benefits, and medical and dental services. In addition, the Commonwealth Government has used its powers under Section 96 of the Constitution to make grants to the States for health purposes.

§ 2. National Health Benefits.

1. Pharmaceutical Benefits.—A comprehensive range of drugs and medicines is made available to all persons receiving treatment from a medical practitioner registered in Australia. The benefits are supplied by an approved pharmacist upon presentation of a prescription, or by an approved hospital to patients receiving treatment at the hospital.

The patient pays the first 5s. of the cost of the prescription, but pensioners who qualify under the Pensioner Medical Service (*see* para. 5, page 667) receive all benefits without any contribution being made.

Total expenditure on pharmaceutical benefits in the year 1959–60 was £24,335,671.

2. Hospital Benefits.—The payment of hospital benefits to the States is authorized under Part V. of the National Health Act 1953–1959. This Act continues the agreements entered into with the various States under the Hospital Benefits Act 1951. Under these agreements, the Commonwealth pays the States certain sums of money which vary according to the number of occupied beds in public hospitals and the status of patients.

The agreements provide for the payment of 12s. a day for patients who are pensioners or their dependants, and for patients in certain South Australian hospitals. The rate of 8s. a day is paid for other patients.

The National Health Act also provides for the payment of 8s. a day for patients in approved private hospitals. This payment is made to the proprietor of the private hospital. A condition of the benefit is that an equivalent amount has been allowed against the patient's account.

Commonwealth additional benefit is paid in the case of patients who are members of a registered hospital benefit organization. The additional benefit is payable at the rate of 4s. a day if a person contributes for a fund benefit of at least 6s. a day but less than 16s. a day, and at the rate of 12s. a day if a person contributes for a fund benefit of at least 16s. a day. Payment of the additional benefit is made through the benefit organization, and the patient normally receives it with the amount of fund benefit payable by the organization. Reimbursement of the Commonwealth additional benefit is subsequently made to the organization by the Commonwealth.

Until 1st January, 1959, organizations' rules generally provided for disallowance of claims for fund benefit in cases of chronic or pre-existing ailments, or after the contributor had received benefit for a certain maximum period each year. As from 1st January, 1959, provision was made for fund benefit to be paid in these cases. The fund benefit generally

payable in such cases is 16s. a day and is paid either from special accounts guaranteed by the Commonwealth, or from the ordinary accounts of the organizations. One of the original conditions of payment was that the treatment was given in a hospital recognized for the purpose of paying this benefit. While this condition still remains as a general rule, provision has been made as from 1st January, 1960, for fund benefit to be paid in certain circumstances to particular cases for treatment in hospitals which are not recognized.

Australian residents and their dependants who receive hospital treatment while temporarily living overseas are eligible to receive the benefit of 8s. a day and the additional benefit to which they are entitled.

Expenditure on hospital benefits in 1959-60 was £17,345,478. This does not include expenditure on mental hospitals (see para. 3, below).

The following tables show the amount of ordinary benefit paid for each of the years 1957-58 to 1959-60, together with the number of registered organizations, the membership thereof, and payments of Commonwealth additional benefit and hospital fund benefit on account of occupied beds in public and approved private hospitals, for the year 1959-60. As many persons contribute on behalf of both themselves and their dependants, the total number of persons covered by hospital benefit schemes is considerably higher than the number of members. Reliable figures for coverage are not available.

HOSPITAL BENEFITS: SUMMARY, 1956-57 to 1959-60.

1. Ordinary Benefits. (a) Paid to Hospitals in respect of occupied beds.

(£.)

Year Ended 30th June.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Territories and Overseas.	Aus- tralia.
1957	3,065,921	1,920,075	1,356,017	714,980	594,007	264,227	57,936	7,973,163
1958	2,832,282	2,024,597	1,415,169	735,079	644,149	276,378	63,498	7,991,152
1959	3,260,416	2,077,329	1,493,257	746,282	720,164	284,522	65,313	8,647,283
1960	3,788,086	2,144,317	1,577,241	820,126	740,266	305,693	71,176	9,446,905

(a) Ordinary benefits are payable in respect of:—(i) beds occupied by pensioners in public hospitals (12s. a day); (ii) beds occupied in certain South Australian hospitals (12s. a day); and (iii) other occupied beds in public hospitals and approved private hospitals (8s. a day).

2. Additional Benefits. (a) Paid through Benefit Organizations.

YEAR ENDED 30TH JUNE, 1960.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus- tralia.(b)
Registered Organizations							
No. 30	(c)	47	3	14	11	10	115
Members	1,161,017	768,773	322,689	293,747	244,111	117,653	2,907,990
Commonwealth Benefit ..	£ 3,584,404	1,851,694	802,159	638,836	793,818	227,662	7,898,573
Fund Benefit	£ 6,194,954	2,184,408	1,093,288	1,136,306	952,343	488,497	12,049,796

(a) An additional benefit of 4s. a day is payable to registered hospital benefit organizations for persons who contribute for a fund benefit of at least 6s. a day but less than 16s. a day, or 12s. a day for those who contribute for a fund benefit of at least 16s. a day.

(b) No hospital benefit organization is registered in the Northern Territory or the Australian Capital Territory. Members who live in one of these territories, or who are overseas, receive their Commonwealth additional benefit and fund benefit through membership of an organization registered in one of the States.

(c) Includes 17 Bush Nursing Hospitals.

3. Mental Hospitals.—In 1946, when Commonwealth hospital benefits were introduced for patients in public hospitals, no provision was made for patients in mental hospitals. To help meet the cost of maintaining patients in mental hospitals, the Commonwealth Parliament passed the Mental Institutions Benefits Act 1948. This Act ratified agreements with the States, whereunder it was provided that:—

(a) the Commonwealth would pay the States a benefit equal to the amount being collected by the States from the relatives of patients in mental hospitals by way of charges for maintenance; and

(b) the States would cease making charges for the maintenance of mental patients.

These agreements operated for five years, and terminated in the latter half of 1954. The amount contributed by the Commonwealth during the operation of the agreements was approximately one shilling a day for each patient. When the agreements terminated, Dr. Alan Stoller, of the Victorian Mental Hygiene Authority, was commissioned to undertake a survey on mental health facilities and needs in Australia. His report was released in May, 1955. The report stated that serious overcrowding existed in the majority of mental hospitals in Australia. The provision of more beds was the most urgent need, but other accommodation and rehabilitation facilities were also required.

Following the report, the Commonwealth made an offer of £10 million to the States, as part of a capital expenditure programme of £30 million on increasing and improving patient accommodation. All States accepted the Commonwealth offer.

The following table sets out the amounts which have been paid to the State Governments by the Commonwealth Government each year from 1955–56 to 1959–60.

EXPENDITURE ON MENTAL HOSPITALS BY THE COMMONWEALTH GOVERNMENT.

(£.)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
1955–56 ..	208,763	445,747	66,588	12,245	9,984	29,822	773,149
1956–57 ..	383,555	527,213	88,068	128,467	51,855	68,974	1,248,132
1957–58 ..	324,151	545,365	114,104	152,159	29,236	91,384	1,256,399
1958–59 ..	196,831	619,585	118,512	122,328	17,210	45,892	1,120,358
1959–60 ..	359,060	518,271	74,613	91,770	36,799	66,995	1,147,508

Amounts shown in the foregoing table represent payments made during the year shown, under the States Grants (Mental Institutions) Act 1955. The total amounts payable to each State under this Act are in aggregate £10,000,000, to be distributed as follows:—New South Wales, £3,830,000; Victoria, £2,740,000; Queensland, £1,460,000; South Australia, £895,000; Western Australia, £720,000; Tasmania, £355,000.

There are no mental hospitals in the Northern Territory or the Australian Capital Territory.

4. Medical Benefits.—A medical benefits scheme has operated since July, 1953, being authorized firstly by the National Health (Medical Benefits) Regulations and then by the National Health Act 1953.

The basic principle of the scheme is Commonwealth support of voluntary insurance towards meeting the costs of medical attention. The benefits payable by the Commonwealth are paid either on a fee-for-service basis in respect of the items set out in the first and second schedules to the National Health Act, or in the form of a subsidy not exceeding half of the payments made to doctors by registered organizations under contract arrangements.

In order to qualify for the Commonwealth benefit, a person is required to be insured with a registered medical benefits organization. The organization pays the Commonwealth benefit to the contributor, usually at the time it pays its own benefit. Reimbursement of the Commonwealth benefit is subsequently made to the organization by the Commonwealth.

Provision was made from 1st January, 1959, for payments of fund benefit in cases of pre-existing ailments and long-term illnesses.

Substantially increased Commonwealth and fund benefits were introduced for a number of medical services from 1st January, 1960. The largest increases were for major operations, where the combined benefits were doubled.

An organization wishing to be registered by the Commonwealth for the purposes of the medical benefits scheme is required to provide to its contributors, subject to its rules, all benefits specified in the first schedule to the National Health Act 1953-59, at rates not less than those provided by the Commonwealth. The organization must be non-profit-making.

In 1959-60, Commonwealth expenditure on medical benefits was £9,205,151.

The following table shows the number of registered medical benefit organizations, their membership, the number of medical services rendered to members and their dependants, and payments of Commonwealth benefits and medical fund benefits to members of registered organizations. As many persons contribute on behalf of both themselves and their dependants, the total number of persons covered by medical benefit schemes is considerably higher than the number of contributors. Reliable figures for coverage are not available.

MEDICAL BENEFITS: SUMMARY, YEAR ENDED 30th JUNE, 1960.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia. (a)
Registered Organizations	No. 26	23	6	9	9	10	83
Members	No. 1,341,861	672,039	318,488	262,798	207,677	104,808	2,907,671
Medical Services	No. 7,938,952	4,929,790	2,345,294	2,069,741	1,784,036	557,168	19,624,981
Commonwealth Benefit	£ 3,873,800	2,203,422	1,053,307	983,995	842,856	247,771	9,205,151
Fund Benefit	£ 5,098,217	2,336,721	1,372,994	1,179,515	1,061,817	345,625	11,394,889

(a) No medical benefit organization is registered in the Northern Territory or the Australian Capital Territory. Members who live in one of those territories, or who are overseas, receive their Commonwealth Benefit and fund benefit through membership of an organization registered in one of the States.

The figures for Commonwealth Benefit above, and for Hospital Benefit on page 665, differ from those in the table on page 689 which include payments towards special account deficits in relation to chronic or pre-existing illnesses.

5. Pensioner Medical Service.—The Pensioner Medical Service, which commenced on 21st February, 1951, was introduced under the authority of the National Health (Medical Services to Pensioners) Regulations made under the provisions of the National Health Services Act 1948-1949. The service has been continued under the provisions of the National Health Act 1953-1959.

The service provided to eligible pensioners consists of medicines provided free of cost and a medical service of a general practitioner nature such as that ordinarily rendered by a general medical practitioner in his surgery or at the patient's home. Specialist services are not provided. Patients may be charged a small fee by doctors for travelling and attendance outside normal surgery or visiting hours. Doctors participating in the scheme are paid on a fee-for-service basis by the Commonwealth Government.

Persons eligible to receive the benefits of the service are those who satisfy a means test and are receiving an age, invalid or widow's pension under the Social Services Act or a service pension under the Repatriation Act; persons receiving a tuberculosis allowance under the Tuberculosis Act; and dependants of persons eligible for the service.

Since 1st November, 1955, the means test which has applied to new enrolments in the service is the income test that had to be satisfied in order to qualify for a full rate pension as at 31st December, 1953.

The means test does not apply to persons who had applied for and were eligible to receive a pension prior to 1st November, 1955, or to persons receiving a tuberculosis allowance.

At 30th June, 1960, 5,685 doctors were enrolled in the scheme to attend to approximately 739,937 pensioners and their dependants.

During the year ended 30th June, 1960, doctors in the scheme performed 6,839,196 services—visits and surgery consultations—for persons enrolled in the scheme. For these services, they were paid £4,112,637. The average number of services rendered by doctors to each person was 9.4.

6. Anti-Tuberculosis Campaign.—The main provisions of the Tuberculosis Act 1948 are as follows:—(a) Section 5 authorizes the Commonwealth to enter into an arrangement with the States for a national campaign against tuberculosis; (b) Section 6 empowers the Commonwealth to take over or provide specified facilities for the diagnosis, treatment and control of tuberculosis; (c) Section 8 provides for the setting up of an advisory council to advise the Commonwealth Minister for Health on matters relating to the national campaign; and (d) Section 9 authorizes the Commonwealth to pay allowances to sufferers from tuberculosis and their dependants.

Under an arrangement with the Commonwealth Government, each State conducts a campaign against tuberculosis. The Commonwealth Government reimburses the State for all approved capital expenditure in relation to tuberculosis, and for net maintenance expenditure to the extent that it exceeds net maintenance expenditure for the year 1947–48. Thus the States carry out the physical or field work of the national campaign and the Commonwealth acts in an advisory, co-ordinating and financial capacity. For this reason, the Commonwealth has not found it necessary to make much use of its powers under Section 6.

An advisory council, known as the National Tuberculosis Advisory Council, has been set up. There are twelve members, the chairman being the Commonwealth Director-General of Health. Other members are the Commonwealth Director of Tuberculosis, the six State Directors of Tuberculosis, the Consultant (Chest Diseases) of the Department of Repatriation, two specialist private practitioners, and an Administrative Officer of the Commonwealth Department of Health.

To help reduce the spread of infection, the Commonwealth Government pays living allowances to persons suffering from tuberculosis, so that they may give up work and undergo treatment. These allowances have been in operation since 13th July, 1950. Since 6th October, 1960, the rates payable have been:

Married sufferer with a dependent wife	£11 2s. 6d. a week.
Each dependent child under the age of sixteen years	10s. a week (additional to child endowment).
Sufferer without dependants	£7 2s. 6d. a week (reducible to £5 a week if a person is maintained free of charge in an institution).

There is a means test on income but not on property. The allowance is reduced by the amount by which a person's income from sources other than his allowance exceeds, in the case of a married person, £7 a week, and in the case of a person without a dependent wife, £3 10s. a week.

The following table gives particulars of the number of new cases of tuberculosis notified in Australia for the year 1959–60:—

TUBERCULOSIS: NEW CASES NOTIFIED, YEAR ENDED 30TH JUNE, 1960.

State or Territory.	Age Group.					Total.
	0–14.	15–34.	35–54.	55 and over.	Not Stated.	
New South Wales ..	80	273	549	511	6	1,419
Victoria	101	235	296	264	1	897
Queensland	31	130	285	320	22	788
South Australia ..	53	63	99	70	..	285
Western Australia ..	18	70	145	168	1	402
Tasmania	17	47	42	28	..	134
Northern Territory ..	1	19	12	15	..	47
Australian Capital Territory .. ..	..	6	6	1	..	13
Australia	301	843	1,434	1,377	30	3,985

Expenditure by the Commonwealth Government during 1959-60 on its anti-tuberculosis campaign is set out in the following table. The figures for "Maintenance" differ from those in the table shown in Chapter XVIII.—Welfare Services, p. 689, because they include administrative costs which are not a charge on the National Welfare Fund.

ANTI-TUBERCULOSIS CAMPAIGN: EXPENDITURE BY THE COMMONWEALTH GOVERNMENT, 1959-60.
(£.)

State or Territory.	Allowances.	Maintenance.	Capital.	Total.
New South Wales	358,178	1,400,000	215,451	1,973,629
Victoria	212,197	1,121,092	25,895	1,359,184
Queensland	201,420	547,749	353,188	1,102,357
South Australia	123,343	634,967	89,816	848,126
Western Australia	70,230	520,455	23,561	614,246
Tasmania	60,104	151,993	21,325	233,422
Northern Territory .. ..	..	..	..	..
Australian Capital Territory .. ..	..	(a) 38,364	..	(a) 38,364
Australia	1,025,472	4,414,620	729,236	6,169,328

(a) Consists of £20,000 for cost of manufacturing B.C.G. vaccine for distribution throughout Australia, and £18,364 for cost of a survey in the Northern Territory.

The following table sets out expenditure by the Commonwealth Government on its anti-tuberculosis campaign since the start of the campaign.

ANTI-TUBERCULOSIS CAMPAIGN: EXPENDITURE BY THE COMMONWEALTH GOVERNMENT 1947-48 TO 1959-60.
(£.)

Year.	Allowances.	Maintenance.	Capital.	Total.
Total 1947-48 to 1954-55 ..	9,524,723	13,455,750	5,758,975	28,739,448
1955-56	1,689,774	4,006,869	1,757,612	7,454,255
1956-57	1,460,651	4,754,765	2,381,210	8,596,626
1957-58	1,254,693	4,585,215	2,128,462	7,968,370
1958-59	1,062,609	4,864,186	1,411,062	7,337,857
1959-60	1,025,472	4,414,620	729,236	6,169,328

7. Anti-Poliomyelitis Campaign.—The success of the 1954 United States field trials of the poliomyelitis vaccine developed by Dr. Jonas Salk and his associates at the University of Pittsburgh was announced in April, 1955. The Commonwealth Government immediately decided to produce the anti-polio vaccine in Australia.

With the advantage of the experience of the campaigns in the United States and Canada, Australia has adopted a vaccine which has proved to be safe and effective in building up immunity against poliomyelitis.

The vaccine was being produced in Australia by the end of 1955 under the most rigid safety conditions. Plans were made for comprehensive testing procedures to be carried out at many stages both during the production process and with the finished product. These tests ensured the maintenance of safety standards no less rigid than those laid down in other countries where vaccination campaigns were in progress. The Research Laboratory at the Fairfield Hospital, Melbourne agreed to act as an independent testing authority under an arrangement with the Commonwealth Government, and the pathology department of the University of Melbourne also agreed to conduct tests. No vaccine was released for use unless the searching requirements of the Commonwealth Serum Laboratories, the Fairfield Hospital, and the University of Melbourne were met.

The vaccine was supplied to the States free of charge and the States accepted responsibility for the cost of their particular vaccination programmes. No child can be vaccinated without the consent of his parents or guardian.

Distribution of the Salk poliomyelitis vaccine to the States began in July, 1956. The States were responsible for the organization and running of their own campaigns and for the distribution of the vaccine in accordance with priority groups established by the National Health and Medical Research Council. Up to 1958, priority was given to children in the 0-14 age group, expectant mothers, and persons subjected to special risk. During 1958, this priority was extended to persons in the 15-44 age group.

Vaccination against poliomyelitis takes the form of three injections of the vaccine. The second injection is given approximately four weeks after the first, and the third injection is given not less than 32 weeks after the first.

Where the incidence of the disease in certain areas approaches epidemic proportions, special efforts have been made to vaccinate as soon as possible all persons in the area who give their consent.

By 30th June, 1960, approximately 2,631,200 children under the age of 15 years had completed the course of injections and, in addition, approximately 437,300 children had commenced the course. Also, by the same date, approximately 1,152,200 persons 15 years of age and over had completed the course of injections and 408,800 had commenced the course.

POLIOMYELITIS: NEW CASES NOTIFIED.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
1956	240	251	112	122	401	55	..	13	1,194
1957	58	13	24	16	8	6	..	..	125
1958	23	60	5	10	2	..	..	..	100
1959	16	30	6	1	3	..	..	..	56
1960	9	24	5	10	4	36	17	..	105

8. Free Milk for School Children Scheme.—In 1950, the States Grants (Milk for School Children) Act was passed. The object of this Act was to improve the diet of school children by the addition of a small quantity of milk each day. All children under the age of thirteen years attending public or private primary schools, including nursery schools, kindergartens, crèches and aboriginal missions, are eligible to receive free milk. The cost of the milk plus half the capital or incidental costs, including administrative expenses of the scheme, is reimbursed by the Commonwealth to the States. All States now participate in the scheme. At 30th June, 1960, approximately 1,588,000 children were entitled to receive free milk under this scheme.

Expenditure by the Commonwealth Government under the scheme since its inception has been as follows:—

COMMONWEALTH EXPENDITURE ON MILK FOR SCHOOL CHILDREN SCHEME.

(£.)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Australia.
1950-51 to 1954-55 ..	3,039,636	1,500,766	582,940	562,042	394,629	515,665	1,864	26,993	6,624,535
1955-56 ..	1,042,173	540,000	308,000	184,000	137,211	185,000	1,016	14,048	2,411,448
1956-57 ..	1,094,469	600,901	386,999	200,000	158,659	156,275	1,323	16,146	2,614,772
1957-58 ..	1,139,512	677,000	401,000	212,000	153,600	160,433	860	18,186	2,762,591
1958-59 ..	1,190,048	782,623	474,909	235,879	182,249	181,025	2,799	19,104	3,068,636
1959-60 ..	1,286,672	910,000	480,246	275,000	229,872	156,358	10,493	22,874	3,371,515

The figures in the foregoing table differ slightly from those in the table shown in Chapter XVIII., Welfare Services, page 689, as they include capital and administrative costs. Figures in the latter table represent only expenditure which is a charge on the National Welfare Fund (i.e., the cost of the milk).

§ 3. Commonwealth Laboratories and Research Institutions.

1. National Health and Medical Research Council.—In 1926, the Commonwealth Government established a Federal Health Council, in accordance with a recommendation of the Royal Commission on Health (1925), “for the purpose of securing closer co-operation between the Commonwealth and State Health Authorities”. This council held sessions each year except in 1932. In 1936, the Commonwealth Government decided to create a body with wider functions and representation, and the National Health and Medical Research Council was established with the following functions:—

- To advise Commonwealth and State Governments on all matters of public health legislation and administration, on matters concerning the health of the public and on medical research.
- To advise the Commonwealth Government on the expenditure of money specifically appropriated to be spent on the advice of this Council.
- To advise the Commonwealth Government on the expenditure of money on medical research and on projects of medical research generally.
- To advise Commonwealth and State Governments on the merits of reputed cures or methods of treatment which are from time to time brought forward for recognition.

The council consists of the Commonwealth Director-General of Health (as chairman), three officers of his department, the official head of the Health Department in each State, and the Director of Public Health for Papua and New Guinea, together with ten other members, one each being nominated by the Federal Council of the British Medical Association, the Royal Australasian College of Surgeons, the Royal Australasian College of Physicians, the Australian Regional Council of the Royal College of Obstetricians and Gynaecologists, the Council of the Australian College of General Practitioners, the College of Pathologists of Australia, the Australian Dental Association, the Australian Paediatric Association, the College of Radiologists of Australasia and (jointly) the Australian universities having medical schools. An eminent layman and laywoman, appointed by the Commonwealth Minister for Health, also serve on the council.

The first session of the National Health and Medical Research Council was held at Hobart in February, 1937. The fiftieth session was held at Sydney in October, 1960.

Under the Medical Research Endowment Act 1937, the Commonwealth Government has made an annual appropriation of funds to assist:—(a) departments of the Commonwealth or of a State engaged in medical research; (b) universities for the purpose of medical research; (c) institutions and persons engaged in medical research; and (d) in the training of persons in medical research. In 1959–60, this appropriation was £241,500.

Approved research institutions under this system now number 74. For 1961, grants for projects numbered 87 in the following fields:—bacteriology, biochemistry, biophysics, clinical research, cytology, dentistry, epidemiology, experimental biology, experimental medicine, experimental pathology, haematology, medical chemistry, neurology, neurophysiology, obstetrics, pathology, physiology and pharmacology, tuberculosis and diseases due to viruses. In certain instances, equipment and apparatus have been made available by the council; this has greatly facilitated some specialized lines of research. The wide scope of work being carried out is greatly assisted by the formation of committees which meet regularly and advise the council on such subjects as public health, epidemic diseases, occupational health, X-rays, radio-active isotopes, medical statistics, radio-therapy, medical radiation, antibiotics, tropical physiology and hygiene, ultrasonics, maternal and child welfare, nutrition, dental research, nursing and veterinary public health.

The research work being done under these grants is of a high standard, many of the individual investigators enjoying international reputations. Beyond this practical achievement, the original objectives of the council are being attained by encouraging young graduates to take up research work and by securing a continuity and permanence of medical research in Australia.

Four scholarships are available each year to allow study overseas for one year. In addition, assistance is often given to scholarship-holders to cover part of their travel expenses.

2. The National Biological Standards Laboratory.—The Therapeutic Substances Act 1953 provides the Commonwealth with powers to ensure that therapeutic substances used for the prevention, diagnosis and treatment of disease in man and animals are safe, pure and potent.

The Director-General of Health is authorized under this Act to set up laboratories to test such substances. In 1958, the first steps were taken to establish an Australian National Biological Standards Laboratory in Canberra.

The Laboratory is divided into two main divisions, a Biological Division and a Pharmaceutical Division. The Biological Division consists of the Bacterial Products Laboratory, the Viral Products Laboratory and an Antibiotic Products Laboratory. The Pharmaceutical Division consists of an Analytical Chemistry Laboratory, an Endocrine Products Laboratory and a Pharmacology Laboratory.

All the above laboratories have now been established and have commenced work with the exception of the Bacterial Products Laboratory.

Samples of therapeutic agents available in Australia are taken and tested for compliance with legal standards. A major function of the laboratories is the establishment of such standards where none at present exist or present standards are unsatisfactory.

The laboratories receive international reference standards of biological substances from stocks maintained in London, and will on request issue Australian reference standards which have been assayed against international standards.

3. Commonwealth Serum Laboratories.—The Laboratories were established in 1916 under the administration of the Department of Trade and Customs and since 1921 have operated under the Department of Health.

Their basic function is to ensure the supply of essential biological products to the Commonwealth in line with its national health needs. This includes:—

- (a) Production and supply of essential biological products.
- (b) Research and development relating to biological products and allied fields.
- (c) The maintenance of potential production capacity for use in emergencies.

Since their foundation, the Laboratories have greatly extended in size and scope. They now produce some 450 regular products and many special products for use in the diagnosis, prevention and treatment of human and animal diseases. Professional, technical and other staffs total over 1,000.

Products comprise a full range of human bacterial and virus vaccines, veterinary bacterial and virus vaccines, serum products such as blood fractions, a wide variety of antibacterial and antitoxic sera, antivenenes, penicillin, endocrines, including insulin, A.C.T.H., pituitary and thyroid extracts, allergy test materials and desensitizing preparations, culture media and diagnostic agents for clinical and laboratory work. More recently, tissue culture materials have been prepared and supplied to virus research workers throughout Australia.

Continuous research is conducted into the relevant aspects of microbiology and immunology, and related fields. As the growth of medical and scientific knowledge in Australia and overseas reveals new methods of diagnosis, prevention and treatment of diseases, this information is applied to the preparation of new biological products at the Laboratories, the most recent being the production of a combined vaccine for simultaneous immunization against tetanus, diphtheria, whooping cough and poliomyelitis.

Facilities are maintained for investigation in relation to public health matters which are inconvenient or impracticable to handle at the Commonwealth Health Laboratories or the School of Public Health and Tropical Medicine.

The Laboratories serve as a national centre for the maintenance in Australia of International Standards of the Permanent Commission on Biological Standards (World Health Organization). They act as a regional reference centre for W.H.O. in collating reports of the prevalence of certain infectious diseases, and provide facilities for the identification of these diseases.

Veterinary biological products produced at the Laboratories have given the lead to other producers in Australia, resulting in the diminution of incidence of a number of serious infectious stock diseases.

4. The Commonwealth Health Laboratories.—Health Laboratories, of which there are fourteen, are situated in the following towns: Albury, Bendigo, Cairns, Canberra, Darwin, Hobart, Kalgoorlie, Launceston, Lismore, Port Pirie, Rockhampton, Tamworth, Toowoomba and Townsville. They were established as an essential part of the quarantine

system, but were also to undertake research into local health problems and to provide doctors of each district with up-to-date facilities for laboratory investigation and diagnosis. It was realized that co-operation between the general practitioner, with his clinical observations and knowledge of the environment of disease on the one hand, and the staff of a well-equipped laboratory on the other, is essential to the investigation and control of disease.

From this standpoint, the Laboratories have already proved their value in the determination of leptospirosis and endemic typhus in North Queensland, in the investigation of special local problems in Darwin, of undulant fever throughout Australia, of silicosis and tuberculosis at Kalgoorlie and of plumbism at Port Pirie. In these investigations, close co-operation has existed with State and local health and hospital services, especially in Queensland, where collaboration has yielded exceptionally valuable results in differentiating the groups of fevers previously unclassified in that State. In this investigational work, as well as in more routine activities, the Laboratories have at their disposal the full resources and technical and specialist facilities available at the Commonwealth Serum Laboratories and the School of Public Health and Tropical Medicine, Sydney.

These laboratories are unique in that, with the exception of the use of X-rays, they cover all the fields of diagnostic requirements, namely, pathology, public health, haematology, parasitology, mycology, bacteriology and biochemistry.

5. Commonwealth Acoustic Laboratories.—Sponsored by the National Health and Medical Research Council, the Acoustic Research Laboratory, Sydney, investigated inter-communication difficulties and noise problems in aircraft and tanks (1942-46). It then investigated the problem of congenital deafness in children resulting from maternal rubella. The Department of Health took over this laboratory in January, 1947, and subsequently established branch laboratories in all other State capitals.

The Acoustic Laboratories Act 1948 gave the Minister for Health the right to establish, maintain and operate, within the Commonwealth, acoustic laboratories for scientific investigations, including tests in respect of hearing aids and their application to the needs of individuals, and in respect of problems associated with noise as it affects individuals. In 1949, the Government approved the provision and maintenance of hearing aids, without charge, to deaf school and pre-school children. This service has since been extended to those whose hearing loss is discovered after leaving school, but who are still under 21 years of age. The Laboratories' functions also include:—(1) provision and maintenance of hearing aids on behalf of Repatriation and other Commonwealth Departments; (2) assistance to the State Education Departments in measuring deafness by providing and maintaining portable audiometers; (3) the making of hearing tests of Civil Aviation aircrew as required by international agreement; and (4) the making of independent tests on behalf of State and other authorities.

The Sydney Laboratory is responsible for staff training, production of equipment, calibration of hearing-aids and audiometers, and the technical administration of branch laboratories.

6. Commonwealth X-ray and Radium Laboratory.—The Commonwealth Radium Laboratory was established in 1929 by the Commonwealth Department of Health to act as the custodian of radium and to ensure its equitable distribution and satisfactory use.

A total of 10 grams of radium, purchased in 1928 by the Commonwealth Government for use in treatment and research, is distributed on loan to treatment centres throughout Australia. Under the terms of this loan, treatment at well-equipped clinics is available to all persons requiring it, irrespective of their ability to pay. This work is co-ordinated by the Department. From time to time, portions of the original radium holding have been remounted by the Department in forms more suitable for recently developed techniques.

In 1935, the Commonwealth Department of Health extended the work of the Commonwealth Radium Laboratory to include the investigation of the physical problems of X-ray therapy. This laboratory, known since then as the Commonwealth X-ray and Radium Laboratory, is maintained by the Commonwealth Department of Health. It is specifically designed for work with X-rays, radium and radio-isotopes, and is amply provided with all necessary equipment for research work, including a 400 kV. high-tension generator. The free-air chamber which acts as the Australian standard X-ray dosimeter is maintained in the Laboratory.

Since 1939, the functions of the Laboratory have included investigations of the physical aspects of the diagnostic use of X-rays with particular emphasis on miniature radiography and high-kilovoltage techniques.

The Laboratory co-operates closely with the local physical services which have been developed in the other capital cities of Australia to provide local facilities for the production of radon, for the calibration of X-ray therapy equipment, and for the measurement of radiation exposure of those who work with X-rays and radioactive materials.

A radon service has been operated by the Laboratory since its inception. During the year 1959-60, 32,150 millicuries of radon were prepared and issued from the Laboratory in the form of implants, needles and tubes for use in Victoria, Tasmania, South Australia and Western Australia. A further 23,233 millicuries were issued by the associated centres in Sydney and Brisbane. The corresponding figures for 1958-59 were 66,646 and 23,776 millicuries respectively. The issue of radon from a few centres to serve hospitals all over the continent is an Australian development and enables very efficient use to be made of the radium available.

Through the development of atomic energy programmes overseas, supplies of radio-isotopes have been available for use in Australia since 1946. The radio-isotopes can be used medically, either as an alternative to natural radio-active materials such as radium and radon (sealed sources), or they may be administered orally or intravenously, in which case the selective up-take by a particular organ or tissue may be used to determine its condition and, in selected cases, to treat it. In addition, radio-isotopes are used in industry for the investigation of the efficiency of processes, for production control, and as research tools.

The importation of radio-isotopes is restricted under the Customs (Prohibited Imports) Regulations, approval for importation being given through the Laboratory by the Director-General of Health after it has been established that the isotope will be used safely and usefully. Isotopes used in Australia are obtained from Great Britain, Canada and the United States of America, and are imported through the Laboratory as the central procurement agency.

During 1959-60, 54 different radio-isotopes were imported for all purposes. This represented 820 separate deliveries from overseas sources of supply. Of this number of shipments, 389 were for medical purposes, 411 for research purposes and 20 for industrial purposes. In 1958-59, the total deliveries were 660, of which 330 were for medical purposes, 284 for research purposes and 46 for industrial purposes. In addition to the 820 deliveries of radio-isotopes arranged by the Laboratory in the year 1959-60, 49 certificates of approval under the Customs (Prohibited Imports) Regulations were issued to permit the entry of radioactive materials imported directly by local firms from their overseas principals. These radioactive materials were for use in industry, medicine and research. In the year 1958-59, the corresponding figure was 55. In addition, in the year 1959-60, 41 certificates of approval were issued to the Australian Atomic Energy Commission to permit the entry of special radio-active materials, including calibrated reference sources, for use within that establishment. Eight shipments of static isotopes were also procured.

Bulk supplies of radio-isotopes for medical purposes are obtained regularly, and these are distributed by the Laboratory as individual doses for use on patients throughout Australia in accordance with a policy developed by the Committee on Radio-isotopes of the National Health and Medical Research Council. These radio-isotopes are issued free of charge.

Six different radio-isotopes were imported in the year 1959-60 for medical purposes, labelled compounds of radio-iodine, radio-phosphorus and radio-colloidal gold being in greatest demand. However, the use of radio-colloidal gold for therapeutic purposes is decreasing, as colloidal solutions of chromic phosphate and zirconium phosphate labelled with radio-phosphorus are being used as the preferred alternative. During 1959-60, the demand continued for special compounds labelled with radio-iodine and for radio-chromium, radio-iron and radio-cobalt labelled vitamin B12.

In all, approximately 7,300 individual doses of radio-isotopes were issued by the Laboratory during 1959-60 for use on patients. The corresponding figure for 1958-59 was approximately 6,400.

The use of radio-isotopes in research and industry is also steadily increasing.

Investigations of the degree of protection necessary in particular applications of X-rays and radio-active materials continue to be an important activity of the Laboratory. It prepares specifications of the protection facilities necessary in departments and laboratories employing ionizing radiation in medicine, research and industry, and carries out measurements of radiation levels in existing departments and laboratories. A film badge service to measure the radiation dose received by those exposed to ionizing radiation is maintained. In 1959-60, 21,351 film badges were processed and assessed. The corresponding figure for 1958-59 was 18,049 films.

The Laboratory has an extensive library of special radiological literature and issues library bulletins at appropriate intervals. Technical communications on topics related to its functions are issued from time to time to medical men engaged in the clinical investigation and treatment of cancer, and to research workers and those in industry interested in applications of radiation.

Officers of the Laboratory serve on a number of committees, both national and international. The services of the Laboratory are available to all who work with ionizing radiation.

7. The School of Public Health and Tropical Medicine.—In March, 1930, the Commonwealth Government, under an agreement with the University of Sydney, established a School of Public Health and Tropical Medicine at the University of Sydney, for the purpose of training medical graduates and students in the subjects of public health and tropical medicine. The organization of the Australian Institute of Tropical Medicine at Townsville was merged in the new school, and the staff, equipment and material were transferred to Sydney.

The School comprises sections of Preventive Medicine, Tropical Medicine, Occupational Health, Environmental Health, Biochemistry, Bacteriology and Pathology, Parasitology, Medical Entomology and Medical Statistics. The Child Welfare section of the Institute of Child Health is located at the School, with which it is closely associated. The Occupational Health Section undertakes surveillance of the health of persons employed at the Small Arms Factory, Lithgow, and at the Munitions Filling Factory, St. Mary's. The library, which includes approximately 17,000 bound volumes and a large collection of official and institutional papers and reports, forms an important information centre in the subjects of public health and tropical medicine.

The work of the school comprises both teaching and investigation. Courses are held for the university post-graduate diploma in public health and the diploma in tropical medicine and hygiene. Lectures are given in public health and preventive medicine as prescribed for the fifth year of the medical curriculum. Courses are also provided in hygiene and social medicine for students of architecture and social studies, in tropical medicine for lay officers, nurses in tropical service, and missionaries, and in industrial health for engineering students. Training is also provided for certain personnel of the armed services, for laboratory workers from various services and institutions, and for post-graduate nursing diploma students.

Investigation covers a wide field of public health and medical subjects, both in the laboratory and in the field. Field work has been carried out in Australia and in Papua, New Guinea, Norfolk Island and Nauru in co-operation with the local administrations and the South Pacific Commission. *Limited accommodation and other facilities for investigation can be made available at the school for independent research workers.*

8. Institute of Child Health.—The institute, which was established early in 1950 in association with the School of Public Health and Tropical Medicine, Sydney, is located at the Royal Alexandra Hospital for Children, where a special teaching and research unit with the necessary ancillary services was made available by the Board of the Hospital.

The Director of the Institute is a senior honorary paediatrician on the staff of the Hospital, and thus has access to the 430 beds for teaching purposes. He is also the Professor of Child Health in the University of Sydney.

The Director is required to co-ordinate and control under-graduate and post-graduate teaching in paediatrics and child health, and thus the Institute and its staff are brought into close contact with each group of medical students who attend the Children's Hospital for 10 weeks tuition in paediatrics and child health.

In the 10 years since its foundation, the staff of the Institute has carried out a number of substantial research projects, including the natural history and prevention of rheumatic fever in childhood, accident prevention, endemic goitre, endocrine disorders and stress in children. All told, some 90 scientific papers describing the research work have been published in Australian and overseas scientific journals.

The Institute and its staff have come to be recognized as an authoritative source for advice and information on many matters relating to paediatrics and child health. The Director and senior members have acted as consultants to Medical Schools of Universities and to Commonwealth and State Authorities and on missions for the World Health Organization to a number of foreign countries. At present, the staff consists of the Director, a Senior Medical Officer, two other medical officers (full time), four part-time medical officers, a social psychologist, a social worker, and clerical and stenographic staff.

9. **Commonwealth Bureau of Dental Standards.**—This laboratory is concerned with research, standards, and testing, related to dental and allied materials and processes. It became part of the Department of Health in January, 1947, but for the preceding eight years it was sponsored by the National Health and Medical Research Council. During that time, the former Dental Materials Research Laboratory established itself as a recognized authority in its special field and proved to be of particular value to the defence services, government departments, the dental profession and manufacturers of dental products. By maintaining the quality of dental materials and improving techniques for their use, the Bureau continues to assist the dentist in his service to the community—a service that calls for restorations and appliances of a high degree of precision and permanence under very exacting conditions.

The functions of the Bureau are: (1) original research into dental equipment, materials, techniques and processes; (2) regular reporting of the results of these investigations in recognized Australian scientific journals; (3) the development of specifications for dental materials and equipment, through the Standards Association of Australia, in consultation with a committee representing the Commonwealth Department of Health, the Australian Dental Association, and manufacturers and distributors; and (4) the provision of a consultative service and testing facilities for manufacturers and distributors of dental materials with a view to assisting them in the improvement of existing products and the development of new materials.

10. **The Australian Institute of Anatomy.**—The Australian Institute of Anatomy is situated in a building erected in Canberra by the Commonwealth Government under the Zoological Museum Agreement Act of 1924. Prior to the passing of this Act, the Commonwealth Government had expressed regret that the Australian nation possessed neither a collection of specimens of the unique and fast disappearing fauna of Australia, nor a museum in which such specimens could be preserved for future generations. Sir Colin MacKenzie, the first Director of the Institute of Anatomy, presented his entire private collection of Australian fauna to the Commonwealth Government. This gift was housed in the Institute. The Institute became part of the Commonwealth Department of Health in 1931.

The original collection has been greatly augmented. A list of gifts to the Australian nation may be found in Official Year Book No. 39, page 1277. In addition to these donations of material, there have been several endowments for orations and lectures, particulars of which are shown in previous issues of the Official Year Book.

The Institute consists of a museum section and a laboratory section. In the museum section, which is open to the public, a portion of the original collection of anatomical specimens assembled by Sir Colin MacKenzie is displayed, together with ethnological collections which have been added since the foundation of the Institute. The material has been arranged to present simple lessons in human hygiene, to display the anatomical features and peculiarities of Australian fauna, and to display aspects of the character of Australian aborigines and natives of Papua and New Guinea.

A number of Health Department sections are now situated in the Institute. These include the Museum and Medical Artistry Section, the Nutrition Section, the Commonwealth Health Laboratory for the Australian Capital Territory, and a Veterinary Laboratory.

The scientific research work of the Institute is now concentrated on problems of nutrition. It takes the form of field surveys of the dietary status of the Australian population and laboratory investigations into the biochemistry of nutrition and metabolism.

§ 4. Control of Infectious and Contagious Diseases.

1. **General.**—The provisions of the various Acts with regard to the compulsory notification of infectious diseases, and the precautions to be taken against the spread thereof, may be conveniently dealt with under the heading of quarantine and notifiable diseases, including venereal diseases.

2. **Quarantine.**—The Quarantine Act is administered by the Commonwealth Department of Health, and has three sections of disease control, as follows:—(i) human quarantine which controls the movements of persons arriving from overseas until it is apparent that they are free of quarantinable disease; (ii) animal quarantine, which controls the importation of animals and animal products from overseas and the security of other animals present on vessels in Australian ports; and (iii) plant quarantine, which regulates the conditions of importation of all plants and plant products with the object of excluding plant diseases, insect pests and weeds.

In respect of interstate movements of animals and plants, the Act becomes operative only if the Governor-General considers that Commonwealth action is necessary for the protection of any State or States, and, in general the administration of interstate movements of animals and plants is left in the hands of the States.

(i) *Human Quarantine.* All passengers and crews arriving in Australia from overseas, whether by air or sea, are subjected to a medical inspection for the purpose of preventing the introduction of disease into Australia. At the major ports, full-time quarantine officers carry out the work, but in the minor ports local doctors act as part-time quarantine officers. In each State, quarantine activities are controlled by the Commonwealth Director of Health, who is a medical officer of the Commonwealth Department of Health.

The main concern of the examining officers is to detect cases of the quarantinable diseases smallpox, cholera, yellow fever, plague and typhus fever. These diseases are not endemic to Australia, and it is of great importance to prevent their entry. Quarantine stations at the major ports and at Darwin and Townsville are kept ready for occupation at all times. In addition, persons arriving in Australia and suffering from infectious diseases such as chicken pox, mumps, scarlet fever and measles are directed to appropriate care and placed in isolation where necessary.

The increasing use of air travel has created particular quarantine problems. Before the use of air transport, persons suffering from an infectious disease would show symptoms on arrival and before disembarkation. Passengers travelling by air, however, can arrive well within the incubation period, and they are, therefore, required to be vaccinated against smallpox before departure. Those from an area infected with cholera or yellow fever are required to be inoculated, in addition, against the particular disease prevalent in that area. They are also required to report any sickness which they might suffer within the fourteen days after arrival. Passengers arriving in Australia by sea are also required to be vaccinated against smallpox, but exemption is granted to those who hold religious convictions against vaccination or who are suffering from a medical condition which makes vaccination undesirable. All passengers, whether they arrive by sea or air, are required to give their intended place of residence, so that they may be traced if a case of disease occurs among the passengers on the aircraft or ship by which they travelled to Australia.

The number of cases of infectious (non-quarantinable) diseases which were discovered among the passengers and crew of overseas vessels and aircraft calling at Australian ports during the year ended 30th June, 1960, and during the preceding four years, are shown in the following tables.

HUMAN QUARANTINE: CASES OF INFECTIOUS (NON-QUARANTINABLE) DISEASES ON OVERSEA VESSELS AND AIRCRAFT CALLING AT AUSTRALIAN PORTS, YEAR ENDED 30th JUNE, 1960.

Disease.	Number of Oversea Vessels and Aircraft on which Cases were Found.	Number of Cases of Infectious Disease.	
		Passengers.	Crew.
Amoebic Hepatitis and Colitis ..	1	1	1
Chicken Pox	17	58	..
Infectious Hepatitis	1	2	..
Infectious Parotitis	2	1	1
Influenza	1	1	3
Leprosy	2	2	..
Measles	21	112	..
Morbilli	3	11	..
Mumps	16	22	2
Paratyphoid	1	1	..
Pulmonary Tuberculosis	1	6	..
Rubella	7	13	1
Scarlet Fever	1	..	2
Syphilis	2	..	2
Varicella	4	4	..
Total	(a) 61	234	12

(a) On some vessels there were cases of more than one disease.

HUMAN QUARANTINE: OVERSEA VESSELS AND AIRCRAFT ARRIVING IN AUSTRALIA AND CASES OF INFECTIOUS (NON-QUARANTINABLE) DISEASE, FOUND THEREON.

Year ended 30th June.	Number of Oversea Vessels and Aircraft Cleared.		Number of Oversea Vessels and Aircraft on which Cases were Found.	Number of Cases of Infectious Disease.	
	Ships.	Aircraft.		Passengers.	Crew.
1956	2,592	1,417	26	104	4
1957	2,702	1,747	53	216	10
1958	2,658	1,881	61	202	20
1959	2,826	1,938	63	344	9
1960	3,046	2,063	61	234	12

(ii) *Animal Quarantine.* Animal quarantine, authorized by the provisions of the Quarantine Act 1908–1950, aims at preventing the introduction or spread of animal diseases. It covers the importation of all animals, raw animal products and biological cultures associated with animal diseases, and goods associated with animals.

Of the domesticated animals, only horses, dogs, cats and poultry are admitted from a limited number of countries depending on diseases present in the country of origin. All must be accompanied by health certificates which include prescribed tests. On arrival in Australia, they are subject to quarantine detention.

Zoological specimens are imported into registered zoos, where they remain in permanent quarantine. Circuses are also registered if exotic species of animals are kept. In a somewhat similar manner, animals for scientific purposes are imported to approved laboratories. All these premises are kept under constant surveillance. Raw animal products such as hair, special types of wool, skins and hides, are specially treated under quarantine control, while such items as raw meat, sausage casings and eggs, which cannot be sterilized, are admitted from very few countries. Other items, such as harness fittings, fodder, and ship's refuse, are treated to destroy any possible infection.

The Animal Quarantine Service is also responsible for the health certification of animals for export to overseas countries in accordance with their various requirements.

The Division of Veterinary Hygiene was created in 1926 to deal with the administration of animal quarantine. Formerly, the full responsibility for this administration fell on the Director of Quarantine. The organization of the Division provides an excellent example of Commonwealth and State co-operation. The central administration is situated within the Health Department at Canberra, with a Director, an Assistant Director, and Veterinary Officers. The Principal Veterinary Officer of the Department of Agriculture in each State is appointed Chief Quarantine Officer (Animals) of the State, and members of his staff Quarantine Officers (Animals). These State officers carry out the quarantine policy formulated by the central administration. Quarantine accommodation is provided in permanent animal quarantine stations at each capital city.

The Division participates in world-wide international notification of the more serious contagious diseases of animals and maintains a census of such diseases throughout the world. Information regarding animal diseases and parasites in Australia is also collected and disseminated by means of service publications. Consultation on technical matters is maintained with various scientific institutions, notably the Commonwealth Scientific and Industrial Research Organization. In matters of policy and the quarantine control of imports, there is a close liaison with the Department of Customs and Excise.

The Division collaborates with the "General" and "Plant" divisions of the quarantine service. Many diseases of animals are communicable to man, and for this reason "Animal" and "General" quarantine administration are in some respects inseparable. Similarly the interests of "Animal" and "Plant" divisions overlap, many items such as insects, fodder and straw being the subject of combined control.

In each alternate year, the Director of the Division convenes the Biennial Conference of Principal Commonwealth and State Veterinarians, which meets under the auspices of the Australian Agricultural Council to discuss problems of animal health and disease control and animal quarantine.

(iii) *Plant Quarantine.* Since 1st July, 1909, the importation into Australia of all plants or parts of plants, cuttings, seeds and fruits, whether living or dead, has been subject to an increasingly stringent quarantine with the object of preventing the introduction of insect pests, plant diseases and weeds not yet established in this country. Under the Quarantine Act 1908-1950, quarantine inspectors are required to examine all plant material at the first port of entry and to release only material free from diseases and pests. Everyone entering Australia is required to declare if he or she has any plant material in luggage or personal effects. Heavy penalties are laid down for those found evading the regulations. All plant material entering as cargo must also be declared.

When the Commonwealth became responsible for all plant quarantine, the State Governments agreed to co-operate by providing and maintaining inspection facilities and personnel, for which they are reimbursed by the Commonwealth. In 1921, the administration of the regulations came under the newly-formed Department of Health, and in 1927 the Division of Plant Quarantine was created, under a Director who is responsible for policy and legislation and for co-ordinating the work of the State officers, who carry out the detailed administration in their capacity as Commonwealth officers.

Any plant material found carrying diseases or pests, or suspected of doing so, may be ordered into quarantine for remedial treatment, or, if the treatment be impracticable, may be destroyed. The cost of treatment is met by the importer. Regulations governing the different types of plants are based on the following broad principles:—(a) The importation of plants likely to be infected with plant diseases, noxious fungi or poison plants is prohibited. (b) Agricultural seed must conform to standards of purity, insect pest and disease freedom. (c) Many commodities such as hops, cotton, peanuts in shell, potatoes, certain crop seeds, vines and specified plants may be imported only by approved importers under special conditions. (d) Certain plant products such as bulbs and timber (in logs or sawn) from specified areas may be imported only if accompanied by certificates showing that prescribed treatment has been given in the country of origin. (e) All nursery stock, including bulbs, must be grown in post-entry quarantine. It may only be imported by approved importers who are registered for this purpose. The numbers of plants which may be imported in any one year are limited.

3. *Notifiable Diseases.*—(i) *General.* (a) *Methods of Prevention and Control.* Provision exists in the Health Acts of all States for the compulsory notification of certain infectious diseases and for the application of preventive measures. When any such disease occurs, the local authority must be notified at once, and in some States notification must be made also to the Health Department.

As a rule, the local authorities are required to report from time to time to the Central Board of Health in each State on the health, cleanliness and general sanitary state of their several districts, and on the appearance of certain diseases. Regulations provide for the disinfection and cleansing of premises, and for the disinfection or destruction of bedding, clothing or other articles which have been exposed to infection. Regulations also provide that persons suspected to be suffering from or to be carriers of infectious disease must submit to clinical and laboratory examination. Persons suffering from certain communicable diseases, for example, small pox and leprosy, may be detained in isolation.

(b) *Diseases Notifiable and Cases Notified in each State and Territory.* The following table, which has been compiled by the Commonwealth Department of Health, shows for each State and Territory the diseases notifiable in 1959 and the number of cases notified. Diseases not notifiable in a State or Territory are indicated by an asterisk.

**DISEASES NOTIFIABLE IN EACH STATE AND TERRITORY OF AUSTRALIA
AND NUMBER OF CASES REPORTED DURING THE YEAR ENDED 31st DECEMBER,
1959.**

Disease.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Acute rheumatism	59	118	129	8	15	*	1	2	332
Amoebiasis	*	3	13	2	2	..	13	..	33
Ankylostomiasis	37	1	63	..	1	..	308	..	410
Anthrax .. .. .	*	..	..	..	..	..	..	..	..
Bilharziasis .. .. .	*	..	..	..	..	..	..	..	..
Breast abscess	38	160	123	*	*	*	*	7	328
Brucellosis	7	16	..	1	8	1	..	..	33
Chorea	3	12	..	1	2	*	..	..	18
Dengue .. .. .	..	..	..	..	1	*	..	..	1
Diarrhoea, infantile	237	609	185	..	26	15	..	36	1,183
Diphtheria	14	14	7	16	48	..	71	..	100
Dysentery, bacillary	*	103	51	61	188	4	99	4	510
Encephalitis	25	45	3	11	..	..	..	..	84
Erythema nodosum .. .. .	..	10	..	..	1	..	..	..	11
Filariasis .. .. .	*	..	..	..	..	..	..	..	..
Homologous serum jaundice .. .. .	*	..	*	..	..	..	..	..	..
Hydatid .. .. .	..	19	..	..	..	16	..	..	35
Infective hepatitis	3,183	1,452	762	749	142	21	53	16	6,378
Influenza	*	*	*	1,163	*	*	*	*	1,163
Lead poisoning	*	..	19	2	2	*	..	..	23
Leprosy	1	1	6	..	18	..	49	..	75
Leptospirosis	9	1	134	..	2	*	..	..	146
Malaria .. .. .	..	12	46	1	3	..	10	..	72
Meningococcal infection	75	63	34	7	3	24	6	5	217
Ophthalmia	*	*	*	1	50	..	..	15	66
Ornithosis	2	1	*	1	..	..	..	..	4
Paratyphoid fever	9	..	..	..	..	2	..	..	11
Poliomyelitis	16	30	6	..	3	..	..	..	56
Puerperal fever	56	4	60	2	..	..	1	..	126
Q-fever .. .. .	..	*	595	*	*	*	*	*	595
Rubella .. .. .	..	992	7	87	221	8	25	17	1,357
Salmonella infection .. .. .	..	*	*	45	40	*	4	1	90
Scarlet fever	478	907	148	232	60	39	13	4	1,881
Tetanus .. .. .	..	8	27	6	5	*	1	1	48
Trachoma	*	..	*	..	656	*	405	..	1,061
Trichinosis .. .. .	..	*	*	..	..	..	..	..	..
Tuberculosis	1,166	811	752	283	343	156	42	11	3,564
Typhoid fever	2	8	7	7	8	..	..	..	32
Typhus—flea, mite or tick borne	2	..	11	..	6	..	..	..	19

* Not notifiable.

NOTE.—No cases of cholera, plague, smallpox, epidemic typhus or yellow fever were notified.

(ii) *Venereal Diseases.* The prevention and control of venereal diseases is the responsibility of State Health Departments. The necessary powers for the purpose are provided either by a special Venereal Diseases Act or by a special section of the Health Act. These Acts make it obligatory upon the patient to report for and continue under treatment until certified as cured. Treatment of venereal disease must be by a registered medical practitioner. Facilities for treatment of venereal disease free of charge may be arranged at subsidized hospitals or at special clinics. Drugs and instruments required for the treatment of venereal disease may be sold only by a registered pharmaceutical chemist on the prescription of registered medical practitioners.

Penalties may be imposed on a patient who fails to continue under treatment. Clauses are inserted in the Acts which aim at preventing the marriage of any infected person, or the employment of an infected person in the manufacture or distribution of foodstuffs.

§ 5. Commonwealth Grants to Organizations Associated with Public Health.

1. *General.*—In addition to providing the services mentioned in sections 1–4 above, the Commonwealth Government gives financial assistance to certain organizations associated with public health. Examples of organizations included in this category are the National Fitness Organizations, the Royal Flying Doctor Service of Australia, the Red Cross Blood Transfusion Service, and the Lady Gowrie Child Centres.

2. **National Fitness.**—In 1938, arising from a recommendation of the National Health and Medical Research Council, the Commonwealth Government appointed a Commonwealth Council for National Fitness, under the Commonwealth Minister for Health, to effect collaboration of Commonwealth, State and Local Government authorities in the National Fitness Movement. Following the recommendations of the first Commonwealth Council meeting in 1939, the Commonwealth Government agreed to make available an annual sum of £20,000 for five years, and grants were allocated to each State for purposes of organization and to each of the six Australian universities to establish lectureships in physical education. In June, 1942, this grant was increased to £72,500 to include grants to State Education Departments and for the work in the Australian Capital Territory.

The functions of autonomous National Fitness Councils operating in each State are connected with voluntary leader training, camping and hostels, assisting the work of voluntary youth and amateur sports organizations, and providing advisory services to these organizations.

The six State education departments spend their Commonwealth grants to assist the promotion of physical education programmes in schools and teachers' colleges. This is done mainly through the organization of training courses for teachers and the development of school camping, which in most States is part of the regular school physical education programme. In New South Wales and Victoria, holiday play centres and camps have become a special feature of the programmes, while Queensland has led the way in the provision of school swimming pools financed in co-operation with parent organizations.

In the universities, departments of physical education provide either a diploma course in physical education or a major course in physical education as part of a degree course.

An annual grant of £2,000 is allocated in the Australian Capital Territory, and is distributed on a £1 for £1 basis to youth and sports organizations for the purchase of equipment, the development of coaching schemes, and the extension of club and camp facilities.

3. **Royal Flying Doctor Service of Australia.**—The purpose of the Royal Flying Doctor Service of Australia is to provide medical and dental services to white and aboriginal persons in isolated areas. Most remote homesteads are equipped with two-way radio sets which they use for receiving ordinary radio programmes, participating in the School of the Air, and for contacting each other. In cases of minor illness or injury, they also use these sets to seek medical advice. If the illness or injury is serious, a doctor flies to the homestead and, if necessary, flies the patient to the nearest hospital. Standard medicine chests are supplied by the service. Each chest contains a first-aid book and instructions on the use of the various drugs and medical supplies in it. Further instructions are given by doctors over the air.

From time to time, special purpose work is undertaken in connexion with flood relief, searching for lost parties and co-ordinating cattle movements.

The service is not conducted with a view to profit. In some sections, small charges are made for particular services or a fixed annual charge is levied on graziers. Other sections rely on voluntary contributions from those who use their services. Donations and government contributions help to provide much of the overhead and capital expenditure incurred each year.

The Commonwealth has made an annual grant to this organization for operational expenses since 1936. Prior to that, from 1928 to 1931, the Commonwealth subsidized the Australian Inland Mission Aerial Medical Service. The Commonwealth annual grant to the Royal Flying Doctor Service of Australia towards maintenance was increased from £25,000 to £40,000 per annum for four years from 1st July, 1958. The Commonwealth grant towards capital expenditure was increased from £15,000 to £27,500 per annum for the same period. This capital expenditure grant is made on a £1 for £1 basis, in respect of approved projects.

The Royal Flying Doctor Service of Australia is conducted by a federal council comprising representatives of six sections, namely Queensland, New South Wales, Victoria, South Australia, Western Australia and the Eastern Goldfields of Western Australia. The Queensland, New South Wales and South Australian sections are centred in their own States but in Western Australia there are three centres, that in the far north being under the control of the Victorian section, and that in the south-east under the control of the Eastern Goldfields section. The third one, which has bases at Port Hedland and Meekatharra, is sponsored by the Western Australian section.

4. **Red Cross Blood Transfusion Service.**—The Australian Red Cross Society conducts a blood transfusion service in all States.

Before 1952–53, the cost of the Red Cross Blood Transfusion Service was borne by the Red Cross Society with assistance from the State Governments. In 1952, the Commonwealth made an amount of £50,000 available to the Red Cross Society through the State Governments. The States were to continue to assist the society at the same level as previously and make arrangements with the society to share any deficit still remaining.

The Commonwealth recognized that the proper maintenance of a blood transfusion service was of the utmost importance to the welfare of the community, and that the service was one eminently suited for operation by the Australian Red Cross Society. In March, 1954, therefore, the Commonwealth offered each State Government a grant equal to 30 per cent. of the certifiable operating expenses incurred by the Society in the conduct of the blood transfusion service in that State. The grant was to be made subject to the conditions that the government of the State concerned agreed to meet 60 per cent. of the cost of operating the service in that State, leaving the society to meet the remaining 10 per cent. of the cost. All States accepted this proposal. The payments made by the Commonwealth government to the State governments in 1959–60 were as follows:—New South Wales, £36,644; Victoria, £43,691; Queensland, £24,494; South Australia, £16,116; Western Australia, £14,923; Tasmania, £4,925; Total, £140,793.

5. **Lady Gowrie Child Centres.**—In 1940, the Commonwealth Government established a pre-school demonstration centre in each of the six capital cities. These centres are known as the Lady Gowrie Child Centres and are administered by the Australian Pre-school Association for the Commonwealth Department of Health.

The specialized function of the centres is that of demonstration and research, and the programmes are carried out under the supervision of the Federal Pre-school Officer. Each centre is concerned with a study of the factors promoting and retarding physical and mental health in young children, and in demonstrating an educational health programme based on the developing needs of children aged 3 to 6 years.

The centres are used for observation by university students of Medicine, Psychology, Education, Social Studies, Architecture, Physical Education, Teacher Training Colleges, Nursing Colleges and Domestic Science.

Fuller information concerning these centres was given in earlier issues of the Year Book (*see* No. 44, p. 536).

C. INSTITUTIONS.

§ 1. General.

In Australia, institutions related to public health may be classified to three groups: (a) State, (b) public and (c) private. To the first group belong those institutions wholly provided for by the State, such as the principal mental hospitals in the various States and the Government and leased hospitals in Western Australia. To the second group belong public institutions of two kinds, namely:—(i) those partially subsidized by the State or by State endowments for maintenance, but receiving also private aid, and (ii) those wholly dependent upon private aid. To the first of these two kinds belong such institutions as the principal metropolitan hospitals; in the second are included institutions established and endowed by individuals for the benefit of the needy generally. All institutions of a private character are included in the third group. A more or less accurate statistical account is possible in classes (a) and (b), but in respect of (c) general tabulation is impossible. Owing to differences in the dates of collection and tabulation, it is impossible to bring statistics of some charitable institutions to a common year.

§ 2. Public Hospitals (other than Mental Hospitals).

1. **General.**—All the State capitals have several large and well-equipped hospitals, and there is at least one in every important town. In large centres, there are special hospitals for infectious diseases, tubercular patients, women, children, and patients suffering from chronic diseases.

The particulars given herein refer to public hospitals at the latest available date and include all institutions affording hospital relief, whether general or special, with the exception of mental hospitals, repatriation hospitals, and private hospitals conducted commercially.

2. Number, Staff and Accommodation.—Details regarding the number of public hospitals, staff, and accommodation for the year 1958–59 are given in the following table:—

PUBLIC HOSPITALS: NUMBER, STAFF AND ACCOMMODATION, 1958–59.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
Number of Hospitals	269	139	138	65	93	26	4	1	735
Medical Staff—									
Honorary ..	4,217	1,424	30	502	376	89	..	40	6,678
Salaried ..	720	805	778	160	119	126	16	4	2,728
Total ..	4,937	2,229	808	662	495	215	16	44	9,406
Nursing Staff ..	13,261	9,075	5,011	2,467	2,914	1,249	156	239	34,372
Accommodation—									
Number of beds and cots ..	22,620	12,522	11,756	3,994	4,589	2,386	422	255	58,544

3. In-Patients Treated.—The following table furnishes particulars of in-patients treated. The figures shown refer to cases, that is to say, a person who is admitted to hospital twice during a year is counted twice. Newborn babies are excluded unless they remain in hospital after their mothers' discharge.

PUBLIC HOSPITALS: IN-PATIENTS TREATED, 1958–59.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
In-patients at beginning of year—									
Males ..	6,540	3,599	3,618	1,116	1,444	827	166	64	17,374
Females ..	9,003	5,110	4,143	1,411	1,487	918	126	117	22,315
Persons ..	15,543	8,709	7,761	2,527	2,931	1,745	292	181	39,689
Admissions and re-admissions during year—									
Males ..	177,350	94,190	96,108	32,770	39,762	13,297	3,630	2,629	459,736
Females ..	275,943	158,217	118,951	44,129	46,876	20,923	3,940	4,457	673,436
Persons ..	453,293	252,407	215,059	76,899	86,638	34,220	7,570	7,086	1,133,172
Total in-patients (cases) treated—									
Males ..	183,890	97,789	99,726	33,886	41,206	14,124	3,796	2,693	477,110
Females ..	284,946	163,327	123,094	45,540	48,363	21,841	4,066	4,574	695,751
Persons ..	468,836	261,116	222,820	79,426	89,569	35,965	7,862	7,267	1,172,861
Discharges—									
Males ..	168,667	88,798	92,490	31,068	38,413	12,574	3,521	2,515	438,046
Females ..	268,950	153,975	116,405	42,788	45,884	20,352	3,853	4,391	656,598
Persons ..	437,617	242,773	208,895	73,856	84,297	32,926	7,374	6,906	1,094,644
Deaths—									
Males ..	7,893	5,249	3,417	1,635	1,395	667	110	99	20,465
Females ..	6,164	4,011	2,389	1,223	938	530	56	72	15,383
Persons ..	14,057	9,260	5,806	2,858	2,333	1,197	166	171	35,848
In-patients at end of year—									
Males ..	7,330	3,742	3,819	1,183	1,398	883	165	79	18,599
Females ..	9,832	5,341	4,300	1,529	1,541	959	157	111	23,770
Persons ..	17,162	9,083	8,119	2,712	2,939	1,842	322	190	42,369
Average daily number resident ..	17,422	8,751	7,767	2,643	2,847	1,750	282	197	41,659

In addition to those admitted to the hospitals, there are large numbers of out-patients treated. During 1958–59, there were 1,132,024 out-patients treated in New South Wales, 568,194 in Victoria, 571,013 in Queensland, 96,761 in South Australia, 119,000 (estimated)

in Western Australia, 86,064 in Tasmania, 82,468 in the Northern Territory and 10,167 in the Australian Capital Territory, making an estimated total for Australia of 2,665,691. The figures quoted refer to cases, as distinct from persons and attendances.

4. **Revenue and Expenditure.**—Details of the revenue and expenditure for the year 1958–59 are shown in the next table. The revenue includes the Commonwealth Hospital Benefits Scheme.

PUBLIC HOSPITALS: REVENUE AND EXPENDITURE, 1958–59.

(£'000.)

Particulars.	N.S.W.	Vic.	Q'land	S. Aust.	W.Aust.	Tas.	N.T.	A.C.T.	Aus- tralia.
Revenue—									
Government aid ..	23,222	15,206	10,034	5,130	4,657	1,781	887	421	68,627
Commonwealth Hos- pital Benefits, etc.		2,199	2,993	880	1,177		40		
Municipal aid ..	(a)	20	..	177	7	..	..	..	204
Public subscriptions, legacies, etc. ..	146	1,440	20	104	60	..	..	..	1,770
Fees ..	9,080	4,852	1,034	1,104	1,522	568	39	74	18,273
Other ..	466	434	186	424	121	7	..	..	1,638
Total ..	32,914	24,151	14,267	7,819	7,544	2,356	966	495	90,512
Expenditure—									
Salaries and wages	18,761	10,678	6,615	3,498	3,748	1,532	388	289	45,509
Upkeep and repair of buildings and grounds ..	903	589	290	335	416	49	36	23	2,641
All other ordinary ..	9,054	7,880	6,140	1,917	2,174	786	278	152	28,381
Capital ..	4,118	4,238	1,065	2,116	1,173	623	264	29	13,626
Total ..	32,836	23,385	14,110	7,866	7,511	2,990	966	493	90,157

(a) Included in "Other".

5. **Summary.**—A summary, for the years 1954–55 to 1958–59, of the number of public hospitals in Australia, medical and nursing staffs, beds, admissions, in-patients treated, out-patients, deaths, average daily number resident, revenue and expenditure is given in the following table.

PUBLIC HOSPITALS: AUSTRALIA.

Particulars.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
Hospitals ..	709	721	731	737	735
Medical Staff ..	7,738	8,103	8,573	9,094	9,406
Nursing Staff ..	27,566	29,070	31,006	32,436	34,372
Beds and cots ..	52,979	53,550	55,801	56,618	58,544
Admissions during year ..	1,008,955	994,466	1,028,320	1,085,503	1,133,172
Total in-patients (cases) treated	1,046,171	1,032,668	1,065,045	1,123,799	1,172,861
Out-patients (cases) (a) ..	2,651,000	2,587,000	2,583,600	2,641,000	2,665,691
Deaths ..	32,489	31,417	33,267	33,689	35,848
Average daily number resident	38,179	38,341	39,092	40,056	41,659
Revenue .. £'000	(b) 63,998	71,612	82,182	87,692	90,512
Expenditure .. £'000	(b) 64,323	74,568	83,922	86,817	90,157

(a) Partly estimated.

(b) Excludes loan receipts and expenditure for New South Wales.

§ 3. Leper Hospitals.

Isolation hospitals for the care and treatment of persons suffering from Hansen's disease (leprosy) are located at Little Bay, New South Wales; Fantome Island, North Queensland; Derby, Western Australia; and East Arm Settlement, Northern Territory. Special wards for the isolation of leprosy patients have been provided at Fairfield (Victoria) and Wooroloo (Western Australia). Peel Island (Queensland) lazaret was closed down on 5th August, 1959, the patients being transferred to the chronic diseases section of South Brisbane Hospital. At the end of 1960, there were seven cases at Little Bay, 19 at Fantome Island, 159 at Derby, two at Wooroloo, 173 at East Arm Settlement and six at Fairfield. Of the 366 cases, 305 were full-blood aboriginals, 38 were half-caste aboriginals, three were South Sea Islanders, one was an Asian and nineteen were Europeans.

§ 4. Mental Hospitals.

1. **General.**—The methods of compiling statistics of mental patients are fairly uniform throughout the States, but there is an element of uncertainty about possible differences in diagnosis in the early stages of the disease. Statistics of mental hospitals (except those relating to revenue and expenditure) include particulars of the two licenced houses in New South Wales. The figures exclude those of reception houses and observation wards in gaols. There are no mental hospitals in the Northern Territory or the Australian Capital Territory.

2. **Hospitals, Staff and Accommodation.**—Particulars regarding the number of hospitals, the medical and nursing staff, and accommodation are given in the following table for the year 1959. Figures for Victoria and Western Australia relate to 31st December, 1959. Figures for the other States relate to 30th June, 1959.

MENTAL HOSPITALS: NUMBER, STAFF, ACCOMMODATION, 1958-59.

Particulars.	N.S.W.	Vic. (a)	Q'land. (b)	S. Aust.	W.Aust. (a)	Tas.	Aust.
Number of Hospitals	15	11	5	2	4	1	38
Medical Staff—							
Males	59	110	15	11	6	4	219
Females	8		4	2	..	..
Persons	(c) 67	110	19	13	6	4	219
Nursing Staff and Attendants—							
Males	1,131	1,160	664	229	188	88	3,460
Females	1,173	1,278	518	242	134	90	3,435
Persons	2,304	2,438	1,182	471	322	178	6,895
Accommodation—							
Number of beds and cots ..	13,060	8,872	4,736	2,776	1,681	900	32,025

(a) Year ended 31st December, 1959. (b) Includes the Epileptic Home. (c) In addition, there are 43 visiting specialists who are paid for their services.

3. **Patients.**—Information regarding patients treated during 1958-59 is given in the following table.

MENTAL HOSPITALS: PATIENTS, DEATHS, ETC., 1958-59.

Particulars.	N.S.W.	Vic. (a)	Q'land. (b)	S.Aust.	W. Aust. (a)	Tas.	Aust.
Number of patients at beginning of year—							
Males	6,722	4,752	2,530	1,387	1,087	382	16,860
Females	7,039	5,048	2,080	1,280	839	375	16,661
Persons	13,761	9,800	4,610	2,667	1,926	757	33,521
Admissions and re-admissions (excluding absconders retaken and transfers from other mental hospitals)—							
Males	1,117	2,199	775	367	191	223	4,872
Females	1,311	1,775	751	345	151	272	4,605
Persons	2,428	3,974	1,526	712	342	495	9,477
Number of persons treated during year—							
Males	7,839	6,951	3,305	1,754	1,278	605	21,732
Females	8,350	6,823	2,831	1,625	990	647	21,266
Persons	16,189	13,774	6,136	3,379	2,268	1,252	42,998
Discharges (including absconders not retaken)—							
Males	604	1,795	615	205	105	195	3,519
Females	796	1,465	507	267	33	210	3,278
Persons	1,400	3,260	1,122	472	138	405	6,797
Deaths—							
Males	436	360	211	121	85	29	1,242
Females	561	415	179	143	79	39	1,416
Persons	997	775	390	264	164	68	2,658
Number of patients at end of year							
Males	6,799	4,796	2,479	1,428	1,088	381	16,971
Females	6,993	4,943	2,145	1,215	878	398	16,572
Persons	13,792	9,739	4,624	2,643	1,966	779	33,543
Average daily number of patients resident—							
Males	5,995	4,040	2,405	1,376	1,000	375	15,191
Females	5,875	4,286	1,903	1,203	706	389	14,362
Persons	11,870	8,326	4,308	2,579	1,706	764	29,553
Number of patients at end of year per 1,000 of population—							
Males	3.61	3.39	3.36	3.06	2.95	2.14	3.34
Females	3.73	3.54	3.05	2.67	2.50	2.42	3.33
Persons	3.67	3.46	3.21	2.87	2.73	2.28	3.33
Average number of patients resident in mental hospitals per 1,000 of population—							
Males	3.21	2.89	3.30	2.99	2.74	2.12	3.02
Females	3.16	3.11	2.73	2.68	2.03	2.37	2.92
Persons	3.19	3.00	3.02	2.84	2.39	2.24	2.97

(a) Year ended 31st December, 1959.

(b) Includes persons treated at the Epileptic Home.

Persons who are well advanced towards recovery are allowed to leave the hospitals and live with their relatives or friends, but they are under supervision and their names are kept in the records. These persons have been included in the table above as patients at the end of the year.

4. Revenue and Expenditure, 1958-59.—Mental hospitals are maintained by the State Governments. They derive a small proportion of their revenue from other sources (chiefly patients' fees, pharmaceutical benefits and sale of farm produce), but in 1958-59 this source provided less than 8 per cent. of all their revenue. For a statement on the funds provided by the Commonwealth Government for mental hospitals, see para. 3. Mental Hospitals, page 666.

In New South Wales, the expenditure includes the cost of Broken Hill patients treated in South Australian mental hospitals:—

MENTAL HOSPITALS: FINANCES, 1958-59.

(£.)

Particulars.	N.S.W.	Vic. (a)	Q'land. (b)	S. Aust.	W. Aust.	Tas.	Australia.
<i>Revenue (excluding Government Grants)—</i>							
Fees of patients	426,001	245,425	81,074	54,680	42,082	12,176	861,438
Other ..	80,236	60,739	10,686	41,548	14,879	1,147	209,235
<i>Total</i>	<i>506,237</i>	<i>306,164</i>	<i>91,760</i>	<i>96,228</i>	<i>56,961</i>	<i>13,323</i>	<i>1,070,673</i>
<i>Expenditure—</i>							
Salaries and wages	2,873,749	3,189,941	1,266,797	571,336	514,207	275,048	8,691,078
Upkeep and repair of buildings, etc.	369,911	295,851	8,802	52,599	49,969	12,067	789,199
All other ..	1,918,127	2,309,261	824,416	396,926	271,831	150,417	5,870,978
Capital(c) ..	714,939	1,574,871	352,551	80,659	55,642	65,914	2,844,576
<i>Total ..</i>	<i>5,876,726</i>	<i>7,369,924</i>	<i>2,452,566</i>	<i>1,101,520</i>	<i>891,649</i>	<i>503,446</i>	<i>18,195,831</i>

(a) Includes Bundoora Hospital, previously excluded. (b) Includes the Epileptic Home.
(c) Capital expenditure includes purchases of land, cost of new buildings and additions to buildings.

5. Summary for Australia.—The following table gives a summary relating to mental hospitals in Australia for each of the years 1954-55 to 1958-59:—

MENTAL HOSPITALS: SUMMARY, AUSTRALIA.

Particulars.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Hospitals	34	35	36	37	38
Medical Staff	144	161	188	206	219
Nursing Staff and Attendants ..	5,748	6,030	6,470	6,761	6,895
Beds	29,690	30,089	30,617	31,587	32,025
Admissions	5,722	7,524	8,276	9,244	9,477
Discharged as recovered, relieved, etc.	3,021	4,235	5,282	6,288	6,797
Deaths	2,276	2,529	2,672	2,468	2,658
Patients at end of year	31,223	32,453	32,775	33,521	33,543
Average daily number of patients resident	28,012	28,639	29,032	29,323	29,553
Revenue (excluding Government Grants)(a)	£ 862,221	803,873	916,201	1,026,689	1,070,673
Total Expenditure(a)	£ 13,397,004	15,579,361	17,553,438	18,236,114	18,195,831

(a) See footnote (a) above.

6. **Number of Mental Patients.**—The total number returned as under treatment at the end of each year shows a slight increase during the period, but the proportion to total population shows a slight decline. A more rational attitude towards the treatment of mental cases has resulted in a greater willingness in recent years to submit afflicted persons to treatment at an early stage, and an increase in the number of recorded cases, therefore, does not necessarily imply an increase in mental diseases. The difference between States in the number of patients in mental hospitals per 1,000 of population may also to some extent be the result of differences in practice. Figures for Victoria and Western Australia relate to 31st December of the year shown; figures for the other States relate to 30th June of the year shown.

PATIENTS IN MENTAL HOSPITALS.

State.			1955.	1956.	1957.	1958.	1959.
NUMBER.							
New South Wales	..	..	13,422	13,767	13,741	13,761	13,792
Victoria	..	..	7,934	8,713	9,187	9,800	9,739
Queensland(a)	..	..	4,704	4,735	4,657	4,610	4,624
South Australia	..	..	2,613	2,658	2,592	2,667	2,643
Western Australia	..	..	1,790	1,814	1,845	1,926	1,966
Tasmania	..	..	760	766	753	757	779
Australia	..	..	31,223	32,453	32,775	33,521	33,543
PER 1,000 OF POPULATION.							
New South Wales	..	..	3.85	3.87	3.79	3.73	3.67
Victoria	..	..	3.11	3.31	3.40	3.54	3.46
Queensland(a)	..	..	3.50	3.45	3.33	3.25	3.21
South Australia	..	..	3.19	3.13	2.97	2.97	2.87
Western Australia	..	..	2.67	2.65	2.63	2.70	2.73
Tasmania	..	..	2.42	2.40	2.30	2.26	2.28
Australia	..	..	3.38	3.43	3.39	3.39	3.33

(a) Includes persons treated at the Epileptic Home.

CHAPTER XVIII.

WELFARE SERVICES.

A. COMMONWEALTH EXPENDITURE ON SOCIAL AND HEALTH SERVICES.

§ 1. Introduction.

The Welfare services outlined in this chapter are those administered by the Commonwealth Department of Social Services. Particulars of benefits provided under the National Health Service appear in Chapter XVII.—Public Health, page 664.

§ 2. National Welfare Fund.

The National Welfare Fund was established by the National Welfare Fund Act 1943 to finance a scheme of national welfare. In introducing this measure to Parliament, the Prime Minister said that part of the scheme was to be introduced immediately, and part was to be deferred until after the end of the war. A certain balance, which would therefore accrue to the fund, would be invested in Commonwealth securities, and would thus provide finance for the war effort.

The fund operated from 1st July, 1943. At its commencement, it was used to finance funeral benefits and maternity allowances. Other social and health benefits were made a charge on the fund from time to time. At present, expenditure on all benefits except repatriation and a few minor social and health benefits is met from the fund. The fund is used only to finance the benefits themselves; it is not used to finance the cost of administering the benefits, or of capital works associated with the benefits.

For particulars of the income of the fund, see Chapter XXI, Public Finance, Division A, § 2, C., para. 6. The following table sets out expenditure from the fund during 1959-60.

COMMONWEALTH EXPENDITURE FROM NATIONAL WELFARE FUND
ON SOCIAL AND HEALTH SERVICES, 1959-60.
(£'000.)

Service.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T. (a)	A.C.T. (a)	Over- seas.	Total.
<i>Social Services—</i>										
Age and Invalid Pen- sions ..	60,438	35,935	22,386	13,183	9,916	4,746	89	201	111	147,005
Child Endowment ..	22,325	16,963	9,650	5,897	4,860	2,359	179	281	18	62,532
Commonwealth Re- habilitation Service ..	188	201	94	92	85	21	..	..	..	681
Funeral Benefits ..	147	91	48	31	24	11	..	1	..	353
Maternity Allowances ..	1,277	1,008	575	337	275	143	12	21	4	3,652
Unemployment Bene- fits ..	1,601	936	1,027	249	564	121	1	6	..	4,505
Sickness Benefits ..	940	546	339	172	164	68	2	7	..	2,238
Special Benefits(b) ..	139	202	89	36	24	19	..	1	..	510
Widows' Pensions ..	4,802	2,916	1,999	1,045	914	416	9	24	12	12,137
<i>National Health Ser- vices—</i>										
Hospital Benefits ..	8,151	4,212	2,393	1,562	1,676	534	44	27	..	18,599
Medical Benefits ..	3,950	2,204	1,053	991	846	248	..	..	..	9,292
Medical Benefits for Pensioners ..	1,868	978	522	362	275	100	..	8	..	4,113
Nutrition of Children ..	1,283	908	479	274	228	153	11	23	..	3,359
Pharmaceutical Bene- fits ..	8,298	6,091	2,715	1,710	1,337	567	..	(c) 43	..	20,761
Pharmaceutical Bene- fits for Pensioners ..	1,577	789	540	331	252	85	..	..	..	3,574
Tuberculosis Cam- paign—										
Allowances ..	358	212	202	124	70	60	..	..	..	1,026
Maintenance and Surveys(d) ..	1,375	1,096	546	623	512	147	..	38	..	4,337
Miscellaneous(e) ..	41	55	102	11	17	22	15	(f) 426	..	689
Total ..	118,758	75,343	44,759	27,030	22,039	9,820	362	1,107	145	299,363

(a) Payments for some Health Services to residents of the Northern Territory and the Australian Capital Territory are included in the amounts shown for States. (b) Includes special benefits to migrants in reception and training centres. (c) Includes payments to Bush Nursing Centres and Royal Flying Doctor Service. (d) Paid to the State Governments as a contribution towards the cost of surveys and the maintenance of institutions for the treatment of tuberculosis. (e) This item covers the cost of district laboratory services, the free supply of prophylactic materials and biological products (e.g., insulin, poliomyelitis and diphtheria prophylactics), the supply and maintenance of hearing aids for children, subsidies to voluntary organizations conducting home-nursing services, and certain costs associated with the blood transfusion services of the Australian Red Cross Society. (f) Includes £241,364 for the production of poliomyelitis vaccine, £80,000 for running expenses of the Blood Fractionation Plant at the Commonwealth Serum Laboratories and £53,616 for home-nursing service throughout Australia.

Expenditure from the fund during each of the years 1955-56 to 1959-60 is shown in the following table. A graph showing expenditure from the fund from 1943-44 to 1959-60 is to be found on page 699.

**COMMONWEALTH EXPENDITURE FROM NATIONAL WELFARE FUND
ON SOCIAL AND HEALTH SERVICES.**
(£'000.)

Service.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
<i>Social Services—</i>					
Age and Invalid Pensions	101,625	109,210	121,577	129,571	147,005
Child Endowment (a)	60,381	57,037	58,734	67,340	62,532
Commonwealth Rehabilitation Service	505	568	608	670	681
Funeral Benefits	319	341	325	346	353
Maternity Allowances	3,410	3,482	3,560	3,599	3,652
Unemployment, Sickness and Special Benefits	2,563	4,000	7,331	8,652	7,253
Widows' Pensions	7,723	8,862	9,832	10,777	12,137
<i>National Health Services—</i>					
Hospital Benefits	9,553	9,813	10,823	14,802	18,599
Medical Benefits	5,413	6,146	7,086	7,780	9,292
Medical Benefits for Pensioners	2,874	2,999	3,198	3,806	4,113
Nutrition of Children	2,405	2,607	2,756	3,069	3,359
Pharmaceutical Benefits	10,380	9,924	12,911	18,455	20,761
Pharmaceutical Benefits for Pensioners	1,508	1,793	2,123	2,517	3,574
<i>Tuberculosis Campaign—</i>					
Allowances	1,690	1,461	1,255	1,063	1,026
Maintenance	4,007	4,755	4,511	4,787	4,337
Miscellaneous	510	925	855	768	689
Rental Rebates .. ..	..	..	..	25	..
Total	214,866	223,923	247,485	278,227	299,363

(a) See footnote to table on p. 695.

§ 3. Capital and Administrative Expenditure.

Particulars of Commonwealth capital expenditure on mental hospitals and the Anti-Tuberculosis campaign are given in Chapter XVII., Public Health (*see* pages 666 and 669). Grants are made to private organizations for the construction of homes for elderly people (*see* para. 4, p. 705).

Information concerning the cost of administering each benefit separately is not compiled. Particulars of the cost of administering the Department of Health and the Department of Social Services may be found in Chapter XXI., Public Finance, Division A, § 2, C., para. 5.

B. COMMONWEALTH SOCIAL SERVICES.

§ 1. Introduction.

Under the provisions of section 51 of the Constitution, the Commonwealth Government is empowered to legislate on:—

“(xxiii) Invalid and old-age pensions:

(xxiiiA) The provision of maternity allowances, widows' pensions, child endowment, unemployment, pharmaceutical, sickness and hospital benefits, medical and dental services (but not so as to authorize any form of civil conscription), benefits to students and family allowances:”.

The latter paragraph was inserted in the constitution after being accepted by the electors at a referendum on 28th September, 1946. The enabling Act was assented to on 19th December, 1946.

Before 1947, each social service benefit was paid under a separate Act. On 1st July, 1947, with the passage of the Social Services Consolidation Act 1947, all Acts providing social service benefits were amalgamated. This Act eliminated certain anomalies and obsolete provisions and changed the title “old-age pension” to “age pension”. The word “Consolidation” was dropped from the short title of the Act in 1954. The Act is at present styled the Social Services Act 1947-1960.

The social service benefits provided by the Commonwealth Government, and the date on which each came into operation, are:—

Age pension	..	..	..	1st July, 1909
Child endowment (for other than first child)	..	..	..	1st July, 1941
Child endowment (for first child)	..	..	..	20th June, 1950
Commonwealth Rehabilitation Service	..	..	..	10th December, 1948
Funeral benefit	..	..	..	1st July, 1943
Invalid pension	..	..	..	15th December, 1910
Maternity allowance	..	..	..	10th October, 1912
Sickness benefit	..	..	..	1st July, 1945
Special benefit	..	..	..	1st July, 1945
Unemployment benefit	..	..	..	1st July, 1945
Widows' pension	..	..	..	30th June, 1942.

§ 2. Age and Invalid Pensions.

Age pensions are payable to men, 65 years of age and over, and women, 60 years of age and over, who are British subjects and who have resided in Australia¹ continuously for at least 20 years, which need not be immediately prior to the date of claim for a pension. Absence in a Territory of the Commonwealth, any periods of absence during which a person's home remained in Australia, and absences in certain other circumstances including, in the case of a claimant who has had at least 18 years' residence, occasional absences aggregating up to 2 years plus 6 months for every year of residence in excess of 18 years, are counted as residence.

Invalid pensions are payable to persons, 16 years of age and over, who have resided in Australia for a continuous period of five years (including certain absences), and who are permanently incapacitated for work to the extent of at least 85 per cent., or permanently blind. If the incapacity or blindness first occurred outside Australia, except during a temporary absence, a total of 20 years' residence is necessary. Certain absences count as residence.

Aboriginal natives, other than those who are nomadic or primitive, are eligible for age and invalid pensions on the same conditions as other members of the community.

A pension is not payable to:—an alien; a person who has deprived himself of property or income in order to qualify for a pension; a person whose annual rate of income is £442 per annum (£884 per annum for a married couple) or more; a person who owns property, apart from his permanent home and other exempt property, valued at £4,620 or more (£9,240 for a married couple). A pensioner with dependent children may, in certain circumstances, have additional income of 10 shillings a week for each child under 16 years of age.

Since 6th October, 1960, the maximum rate of pension has been £260 per annum (£5 a week). The wife of an invalid pensioner (or of an age pensioner who is permanently incapacitated for work or permanently blind) may be granted a wife's allowance of not more than £91 per annum (£1 15s. a week). A child's allowance of £29 18s. per annum (11s. 6d. a week) is also paid to an invalid pensioner who is maintaining a child under 16 years of age. If an invalid pensioner is maintaining more than one child, his pension is increased, subject to the means test, by £26 per annum (10s. a week) for each additional child. Supplementary assistance of £26 per annum (10s. a week) is payable to single pensioners and to married pensioners whose spouses do not receive pension or allowance, if the pensioner pays rent and is considered to be entirely dependent on his pension. At 30th June, 1960, 407,650 age pensioners (76 per cent. of all age pensioners) and 70,151 invalid pensioners (87 per cent. of all invalid pensioners) were receiving the maximum pension (£247 at that date).

If a pensioner is an inmate of a benevolent home, £1 15s. a week of his pension is paid to him. The rest is paid to the home for his maintenance, except where he is a patient in an infirmary ward.

Age and invalid pensions (other than invalid pensions paid to blind persons) and allowances paid to wives of invalid pensioners (but not the child's allowance of 11s. 6d. a week) are subject to a means test which applies to income and to property. From March 1961, the means tests previously applied separately on income and property were merged into

one composite means test. The pension payable depends on the claimant's *means as assessed*. These consist of his annual rate of income plus a property component equal to £1 for each complete £10 of his net property above £200. A person's *means as assessed* may consist entirely of income, entirely of property component, or of various combinations of income and property component. The pension payable is calculated by deducting from the maximum annual rate of pension the amount by which the *means as assessed* exceeds £182. No pension is payable if the pensioner's property is £4,620 or more.

Certain types of income are excepted. The main exceptions are:—income from property; gifts or allowances from children, parents, brothers or sisters; benefits from friendly societies; child endowment or other payments for children; Commonwealth health benefits and amounts received from registered benefit organizations. The value of free board and lodging received by a pensioner is assessed as income of 12s. 6d. a week.

Certain types of property are disregarded. They include the permanent home of the pensioner, his furniture and personal effects, the surrender value (up to £750) of life insurance policies, the capital value of annuities or contingent interests and the value of any reversionary interests.

For the purposes of the means test, the income and property of a married person are considered to be half the total income and property of the husband and wife (unless they are legally separated or in other special circumstances. The pension is then assessed as for a single pensioner.

The following statement shows the rates of pension at 1st July, 1909, and the rates as they have been varied since that date, subject in all cases to income and property qualifications:—

MAXIMUM RATES OF PENSION PAYABLE.(a)

Date from which Operative.	Maximum Pension Payable.		Limit of Income (including Pension) per Annum.	Date from which Operative.	Maximum Pension Payable.		Limit of Income (including Pension) per Annum.
	Per Week.	Per Annum.			Per Week.	Per Annum.	
	s. d.	£ s.	£ s.		s. d.	£ s.	£ s.
1st July, 1909 ..	10 0	26 0	52 0	1st April, 1943(c) ..	26 6	68 18	101 8
12th October, 1916 ..	12 6	32 10	58 10	19th August, 1943(c) ..	27 0	70 4	102 14
1st January, 1920 ..	15 0	39 0	65 0	25th November, 1943(c) ..	26 6	68 18	101 8
13th September, 1923 ..	17 6	45 10	78 0	25th November, 1943(e) ..	27 0	70 4	102 14
8th October, 1925 ..	20 0	52 0	84 10	5th July, 1945 ..	32 6	84 10	117 0
23rd July, 1931 ..	17 6	45 10	78 0	13th August, 1946 ..	32 6	84 10	116 10
13th October, 1932(b) ..	15 0	39 0	71 10	3rd July, 1947 ..	37 6	97 10	149 10
26th October, 1933 ..	17 6	45 10	78 0	21st October, 1948 ..	42 6	110 10	188 10
4th July, 1935(c) ..	18 0	46 16	79 6	2nd November, 1950 ..	50 0	130 0	208 0
24th September, 1936 ..	19 0	49 8	81 18	1st November, 1951 ..	60 0	156 0	234 0
9th September, 1937 ..	20 0	52 0	84 10	2nd October, 1952 ..	67 6	175 10	253 10
26th December, 1940 ..	21 0	54 12	87 2	29th October, 1953 ..	70 0	182 0	266 0
3rd April, 1941(c) ..	21 6	55 18	88 8	14th October, 1954 ..	70 0	182 0	266 0
11th December, 1941 ..	23 6	61 2	93 12	27th October, 1955 ..	80 0	208 0	300 0
2nd April, 1942(c) ..	24 0	62 8	94 18	24th October, 1957 ..	87 6	227 10	409 10
1st October, 1942(a) ..	25 0	65 0	97 10	8th October, 1959 ..	95 0	247 0	429 0
1st October, 1942(c) ..	25 6	66 6	98 16	6th October, 1960 ..	100 0	260 0	442 0
7th January, 1943(c) ..	26 0	67 12	100 2				

(a) Excludes amounts payable for wives and children of invalid pensioners and supplementary assistance. (b) Additional pension of £6 10s. per annum (2s. 6d. a week) was payable to a pensioner with no income. Pensioners with income of less than 2s. 6d. a week were paid additional pension of 2s. 6d. less the amount of income. (c) Variation according to change in retail price index number. (d) Increase paid on 9th July, 1942, retrospective to 2nd April, 1942. (e) Rate restored to £70 4s. per annum under National Security (Supplementary) Regulations 112A—Statutory Rule 315 of 1943.

NOTE.—Provision for variations according to retail price index numbers was repealed on 6th April, 1944.

The number of age pensioners at 30th June, 1960, was 538,022, of whom 168,185 (or 31 per cent.) were males, and 369,837 (or 69 per cent.) were females. This was an increase of 24,233 for the year. Over a third of the increase was due to statistical adjustments in Victoria, Queensland and Western Australia, where the introduction of mechanical methods for paying pensions enabled the Department to make a complete count of the numbers receiving the different kinds of pensions and allowances. This revealed that a number of age pensioners had previously been shown incorrectly in these statistics as invalid pensioners. The adjustment between the two types of pensions has altered the numbers in each category, but the combined total of pensioners has not been affected to any significant extent.

During 1959-60, 52,472 age pension claims were granted, 39,357 pensions expired through cancellations and deaths, and 11,252 pensioners were transferred from the invalid pension list. Of the latter, 10,237 were due to the statistical adjustment referred to above.

The recorded ages of the 52,472 persons (19,812 males and 32,660 females) to whom age pensions were granted during the year 1959-60 varied considerably, ranging from 9,615 at age 60 to four who were over 97; 38,904 were in the 60-69 age-group. The conjugal condition of these new pensioners was as follows:—Males—single and divorced 2,385; married, 14,383; and widowed, 3,044; Females—single and divorced, 4,235; married, 18,026; and widowed, 10,399.

The number of invalid pensioners at 30th June, 1960, was 80,816 of whom 42,834 (or 53 per cent.) were males and 37,982 (or 47 per cent.) were females. During 1959-60, 14,416 invalid pension claims were granted, 6,271 pensions ceased through cancellation or death, and 11,252 invalid pensioners were transferred to the age pension list. Of the latter, 10,237 were due to the statistical adjustment. Pensioners in benevolent homes have been included.

The recorded ages of the 14,416 persons (8,891 males and 5,525 females) to whom invalid pensions were granted during 1959-60 varied widely, 1,215 (9 per cent.) were in the 16-19 years age-group, 2,437 (17 per cent.) were in the 20-44 years age-group, 7,255 (50 per cent.) were in the 45-59 years age-group, 2,765 (19 per cent.) were in the 60-64 years age-group, and 744 (5 per cent.) were over 65 years of age.

The conjugal condition of persons to whom invalid pensions were granted during the year was as follows:—males—single, 3,018; married, 5,278; and widowed, 595; females—single, 2,102; married, 2,598; and widowed, 825.

AGE AND INVALID PENSIONS, 30th JUNE, 1960.

Particulars.	N.S.W.	Vic. (a)	Qld. (a)	S.A.	W.A. (a)	Tas.	N.T.	A.C.T.	Aust.
<i>Age Pensions in force—</i>									
Males	67,454	40,027	27,913	15,384	11,952	5,060	178	217	168,185
Females	149,342	96,071	54,283	34,095	24,623	10,775	183	465	369,837
Persons	216,796	136,098	82,196	49,479	36,575	15,835	361	682	538,022
<i>Invalid Pensions in force—</i>									
Males	18,335	9,447	6,312	3,450	3,458	1,693	84	55	42,834
Females	17,306	8,099	5,293	2,937	2,694	1,513	67	73	37,982
Persons	35,641	17,546	11,605	6,387	6,152	3,206	151	128	80,816

(a) On 30th June, 1960, a number of invalid pensioners were transferred to their correct designation of age pensioners as follows:—Victoria, 4,843; Queensland, 4,908; and Western Australia, 486.

The sum disbursed in age and invalid pensions in 1959-60, including the amount paid to homes for the maintenance of pensioners and allowances to wives of invalid pensioners, represented an expenditure of £14 9s. 1d. per head of population as compared with £13 0s. 4d. in 1958-59.

The following table gives details of age and invalid pensions for the years 1955-56 to 1959-60:—

AGE AND INVALID PENSIONS: SUMMARY, AUSTRALIA.

Year ended 30th June—	Pensioners at End of Year.				Total Payments. (c)	Average Fortnightly Pension as at 30th June.		
	Age.		Invalid.	Total. (b)		Age.	Invalid.	Age and Invalid Com- bined.
	No.	Rate. (a)						
			No.	No.	£	s. d.	s. d.	s. d.
1956 ..	(d)446,207	449	(e) 82,775	535,226	101,625,068	153 7	156 10	154 1
1957 ..	465,781	460	88,236	554,017	109,209,972	152 10	157 8	153 7
1958 ..	(f)496,757	482	(f) 77,451	574,208	121,577,042	166 11	171 9	167 7
1959 ..	513,789	490	83,853	597,642	129,571,447	166 9	173 5	167 8
1960 ..	(g)538,022	501	(g) 80,816	618,838	147,005,341	180 7	189 4	181 9

(a) Number of pensioners per 1,000 persons of pensionable age (males aged 65 years and over and females aged 60 years and over). (b) Includes age and invalid pensioners in benevolent homes.

(c) Includes allowances and supplementary assistance. (d) Excludes age pensioners in benevolent homes.

(e) Excludes invalid pensioners in benevolent homes. (f) On 30th June, 1958, 15,205

invalid pensioners in New South Wales were transferred to their correct designation of age pensioners.

(g) On 30th June, 1960, a number of invalid pensioners were transferred to their correct designation of age pensioners as follows:—Victoria, 4,843; Queensland, 4,908; and Western Australia, 486.

§ 3. Child Endowment.

A person who is resident in Australia and has the custody, care and control of one or more children under the age of 16 years, or an approved institution of which children are inmates, shall be qualified to receive an endowment in respect of each child under 16. There are provisions to meet cases of families divided because of divorce, separation, unemployment or death of a parent. There is no means test.

Twelve months' residence in Australia is required if the mother and the child were not born here, but this requirement is waived if the Department of Social Services is satisfied that they are likely to remain in Australia permanently. Where the child's father is not a British subject, endowment is payable if the child was born in Australia, if the mother is a British subject, or if the Department is satisfied that the child is likely to remain permanently in Australia.

Under certain conditions, endowment may be paid to Australians who are temporarily absent overseas. Endowment is payable to aboriginal natives unless they are nomadic or primitive.

From 1st July, 1941, the rate of endowment was 5s. a week for each child in excess of one in a family, and for each child under 16 in an approved institution. The rate was increased to 7s. 6d. a week in June, 1945, and to 10s. a week in November, 1948. Since June, 1950, the rates of endowment have been 5s. a week for the first child in a family, 10s. a week for each other child in a family, and 10s. a week for each child in an institution.

The number of families receiving child endowment at 30th June, 1960, was 1,476,835, an increase of 25,319 or 1.7 per cent. during the year. The following table shows, for each State and Territory, the number of claims for child endowment in force and the number of endowed children at 30th June, 1960.

CHILD ENDOWMENT: CLAIMS AND ENDOWED CHILDREN, 30th JUNE, 1960.

State or Territory.	Family Groups.			Institutions.		Total Endowed Children.
	Claims in force.	Endowed Children.		Number.	Endowed Child Inmates.	
		Number.	Average number per claim.			
New South Wales	550,258	1,162,471	2.11	126	6,337	1,168,808
Victoria ..	403,934	874,014	2.16	100	5,365	879,379
Queensland ..	211,837	490,785	2.32	49	3,487	494,272
South Australia ..	139,985	308,033	2.20	50	1,563	309,596
Western Australia	107,918	246,788	2.29	67	3,661	250,449
Tasmania ..	51,463	120,769	2.35	19	548	121,317
Northern Territory	3,575	8,050	2.25	32	2,795	10,845
Australian Capital Territory ..	7,624	17,242	2.26	..	..	17,242
Overseas ..	241	505	2.10	..	..	505
Total ..	1,476,835	3,228,657	2.19	443	23,756	3,252,413

The following table shows, as at 30th June, 1960, the number of claims in force and the number of endowed children, classified according to the number of endowed children in the family group. The families included in the table are not necessarily made up entirely of the children of one marriage, but may include step-children, foster children, adopted children, and all children under the custody, care and control of the claimant.

CHILD ENDOWMENT: ENDOWED CHILDREN IN FAMILY GROUPS, 30th JUNE, 1960.

Number of Endowed Children in Family Group.	Claims in Force.	Endowed Children.	Number of Endowed Children in Family Group.	Claims in Force.	Endowed Children.
1 ..	522,712	522,712	9 ..	1,098	9,882
2 ..	484,005	968,010	10 ..	388	3,880
3 ..	270,402	811,206	11 ..	127	1,397
4 ..	122,003	488,012	12 ..	43	516
5 ..	47,016	235,080	13 ..	14	182
6 ..	18,629	111,774	16 and over ..	3	63
7 ..	7,217	50,519			
8 ..	3,178	25,424	Total ..	1,476,835	3,228,657

The following table shows the annual liability in respect of child endowment at 30th June, 1960, and the actual expenditure thereon for the year 1959-60 in each State and Territory.

CHILD ENDOWMENT: LIABILITY AND EXPENDITURE, 1959-60.

(£.)

State or Territory.	Annual Liability at 30th June, 1960.			Total Payments to Endowees and Institutions during 1959-60.
	Family Groups.	Institutions.	Total.	
New South Wales ..	23,070,892	164,762	23,235,654	22,325,137
Victoria ..	17,473,222	139,490	17,612,712	16,962,637
Queensland ..	10,006,529	90,662	10,097,191	9,649,931
South Australia ..	6,189,053	40,638	6,229,691	5,896,887
Western Australia ..	5,013,554	95,186	5,108,740	4,859,840
Tasmania ..	2,470,975	14,248	2,485,223	2,359,554
Northern Territory ..	162,825	72,670	235,495	179,516
Australian Capital Territory ..	349,180	..	349,180	280,969
Overseas ..	9,997	..	9,997	17,506
Total ..	64,746,227	617,656	65,363,883	62,531,977

The following table shows, for Australia, the number of claims, the number of endowed children and the annual liability at 30th June for each of the years from 1956 to 1960 and the actual expenditure for the years 1955-56 to 1959-60.

CHILD ENDOWMENT SUMMARY: AUSTRALIA.

At 30th June—	Family Group Claims.	Institutions.	Endowed Children.	Annual Liability for Endowment. (a)	Total Payments. (a) (b)
				£	£
1956 ..	1,339,807	392	2,875,664	57,349,773	(c) 60,380,685
1957 ..	1,378,169	397	2,978,191	59,516,769	57,036,962
1958 ..	1,415,378	415	3,073,945	61,522,656	58,733,561
1959 ..	1,451,516	421	3,171,823	63,597,690	(c) 67,539,615
1960 ..	1,476,835	443	3,252,413	65,363,883	62,531,977

(a) A number of endowments are paid every twelve weeks. During two years out of every three, there are four such payments, but every third year there are five. Figures for annual liability, therefore, reflect trends in expenditure on child endowment more accurately than do figures for payments.

(b) Year ended 30th June.

(c) Expenditure for this year includes five twelve weekly payments.

§ 4. Commonwealth Rehabilitation Service.

The Commonwealth Rehabilitation Service has been set up to help persons who are unable to work because of physical handicap, or who have had to give up their employment because of sickness or injury. It helps disabled persons to reach their maximum physical fitness and to prepare for suitable employment. They are given suitable treatment and training, the cases selected being those in which the person's disability is remediable and there are reasonable prospects of his engaging in a suitable vocation within three years after the commencement of treatment or training.

The benefits are available to invalid and widow pensioners, persons receiving unemployment, sickness or special benefits, persons receiving tuberculosis allowances and persons aged 14 or 15 who, without treatment and training, would be likely to qualify for

an invalid pension on reaching the age of 16 years. Other persons may participate in the scheme upon reimbursement of the cost of treatment and training. During treatment, payment of pension or benefit continues. When vocational training begins, the pension or benefit is suspended and a rehabilitation allowance, together with a training allowance of £1 10s. a week, is paid instead. With an invalid pensioner, or a sickness, unemployment or special beneficiary, this is equivalent to and calculated in the same manner as an invalid pension. In the case of a widow pensioner, the rate is the same as that of the widow's pension.

Living-away-from-home allowances are paid where necessary. Fares and living expenses (including those of an attendant where required) incurred in connexion with treatment, training or attendance for an interview or for medical examination may also be paid. A person receiving treatment or training may be provided, free of charge, with necessary artificial replacements, surgical aids and appliances. He may also be provided with books, equipment and tools of trade, costing not more than £40. If these are retained by him, he is required to pay the cost, but payments may be made by small instalments after he has commenced in employment.

If the treatment or vocational training does not result in the trainee being able to engage in employment, he receives the pension or benefit to which he is entitled.

The numbers of persons receiving benefits who were examined, accepted, trained and placed in employment during the year 1959–60 are shown in the following table:—

COMMONWEALTH REHABILITATION SERVICE: AUSTRALIA, 1959–60.

Type.	Examined.	Accepted.	Completed Training.	Placed in Employment.	
				After Training.	Without Training.
Invalid pensioners	11,795	200	121	95	96
Widow pensioners	5	4	..	3	..
Unemployment and sickness beneficiaries	8,678	844	221	203	601
Special beneficiaries	2	..	..	..	..
Recipients of Tuberculosis allowance	517	76	56	63	32
Persons aged 14–15 years ..	166	71	39	36	42
Persons provided with rehabilitation on payment of the cost ..	129	92	3	3	69
Total	21,292	1,287	440	403	840

§ 5. Funeral Benefits.

A funeral benefit of up to £10 is payable to the person who has paid, or is liable to pay, the cost of the funeral of an age or invalid pensioner or of a claimant who, but for his death, would have been granted an age or invalid pension, or of a person who at the time of his death was receiving, or was a claimant for, a tuberculosis allowance, if he would otherwise have been qualified to receive an age or invalid pension. Where the cost of the funeral has been partly met by payment from a contributory funeral benefit fund of an organization other than a friendly society, funeral benefit is payable to the extent of the amount (not above £10) by which the cost of the funeral exceeded the amount paid from the fund. A funeral benefit is not payable to a person administering a contributory funeral benefit fund.

The following table shows the number of funeral benefits which were paid in each State and Territory for the years 1955–56 to 1959–60.

FUNERAL BENEFITS GRANTED, AUSTRALIA.

State.	Benefits Granted.				
	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
New South Wales	13,148	13,927	12,895	14,092	14,764
Victoria	8,216	9,262	8,740	9,290	9,069
Queensland	4,501	4,830	4,565	4,880	4,891
South Australia	2,864	2,974	2,802	3,170	3,141
Western Australia	2,335	2,366	2,358	2,352	2,448
Tasmania	918	1,002	1,097	1,111	1,100
Northern Territory	6	2	6	8	3
Australian Capital Territory ..	31	28	33	58	49
Australia	32,019	34,391	32,496	34,961	35,465

§ 6. Maternity Allowances.

Maternity allowances are paid to provide financial assistance towards the expenses associated with the birth of children and are additional to the benefits provided under the Commonwealth hospital benefits scheme. They are not subject to a means test.

The allowance is £15 if the mother has no other children, £16 if she has one or two other children and £17 10s. if she has three or more other children under the age of 16 years. The amount is increased by £5 for each additional child born at a birth. An advance payment of £10 on account of a maternity allowance may be made four weeks before the expected date of birth. The balance is payable immediately after the birth. Payment may be made in respect of the birth of a still-born child, or a child which lives for less than twelve hours, if the child had developed for at least $5\frac{1}{2}$ months.

A maternity allowance is payable to a woman who, at the date of giving birth to a child, is residing in Australia, is temporarily abroad, or is on board a ship proceeding from a port in Australia or an Australian Territory to another port in Australia or another Australian Territory, or on board a ship proceeding to Australia, provided she receives no maternity benefit from the country from which she came. An alien mother may receive the allowance if she or her husband resided in Australia for at least twelve months immediately prior to the birth of the child, or if she is likely to remain in Australia. Aboriginal natives, other than those who are nomadic or primitive, are eligible for maternity allowances on the same conditions as other members of the community.

The following table gives details of the amount paid in each State for the years 1955-56 to 1959-60:—

MATERNITY ALLOWANCES: AMOUNT PAID IN EACH STATE.

(£'000.)

Year ended 30th June—	N.S.W.	Vic.	Q'land.	S.Aust.	W.Aust.	Tas.	N.T.	A.C.T.	Over- seas.	Total.
1956	1,207	935	526	304	276	137	8	15	2	3,410
1957	1,252	949	532	319	271	131	9	17	2	3,482
1958	1,281	969	547	323	271	138	11	18	2	3,560
1959	1,266	1,020	546	328	267	139	11	20	2	3,599
1960	1,277	1,008	574	337	275	143	12	21	4	3,651

The following table shows the number of maternity allowance claims paid in each State or Territory during the years 1955-56 to 1959-60:—

MATERNITY ALLOWANCES: CLAIMS PAID IN EACH STATE.

Year ended 30th June—	N.S.W.	Vic.	Q'land.	S.Aust.	W.Aust.	Tas.	N.T.	A.C.T.	Over- seas.	Total.
1956	75,591	58,385	32,764	19,036	17,180	8,328	510	961	110	212,865
1957	77,387	59,648	32,882	19,929	16,853	8,166	579	1,067	106	216,617
1958	79,220	60,666	34,000	20,001	16,829	8,509	666	1,137	121	221,149
1959	80,289	63,428	34,266	20,541	16,594	8,608	682	1,276	95	225,779
1960	81,241	62,853	35,515	21,443	17,012	8,985	767	1,311	262	229,389

The following table shows the number of claims paid in each State at the several rates of maternity allowances during the year 1959-60:—

MATERNITY ALLOWANCES: CLAIMS PAID AT EACH RATE, 1959-60.

State or Territory.	Single Births.			Multiple Births.						Total Claims Paid.
	£15.	£16.	£17 10s.	Twins.			Triplets.			
				£20.	£21.	£22 10s.	£25.	£26.	£27 10s.	
New South Wales ..	25,570	38,095	16,670	228	429	243	2	3	1	81,241
Victoria. . .	19,882	29,513	12,673	209	365	204	3	2	2	62,853
Queensland ..	10,217	16,046	8,856	85	181	124	1	2	3	35,515
South Australia ..	6,420	10,144	4,596	70	128	83	2	..	..	21,443
Western Australia ..	4,768	8,168	3,868	44	91	72	..	1	..	17,012
Tasmania ..	2,517	4,071	2,290	36	37	34	..	..	..	8,985
Northern Territory ..	254	319	188	1	4	1	..	..	..	767
Australian Capital Territory	395	622	278	5	6	5	..	..	..	1,311
Overseas ..	98	132	32	..	..	..	..	..	..	262
Total	70,121	107,110	49,451	678	1,241	766	8	8	6	229,389

§ 7. Unemployment, Sickness and Special Benefits.

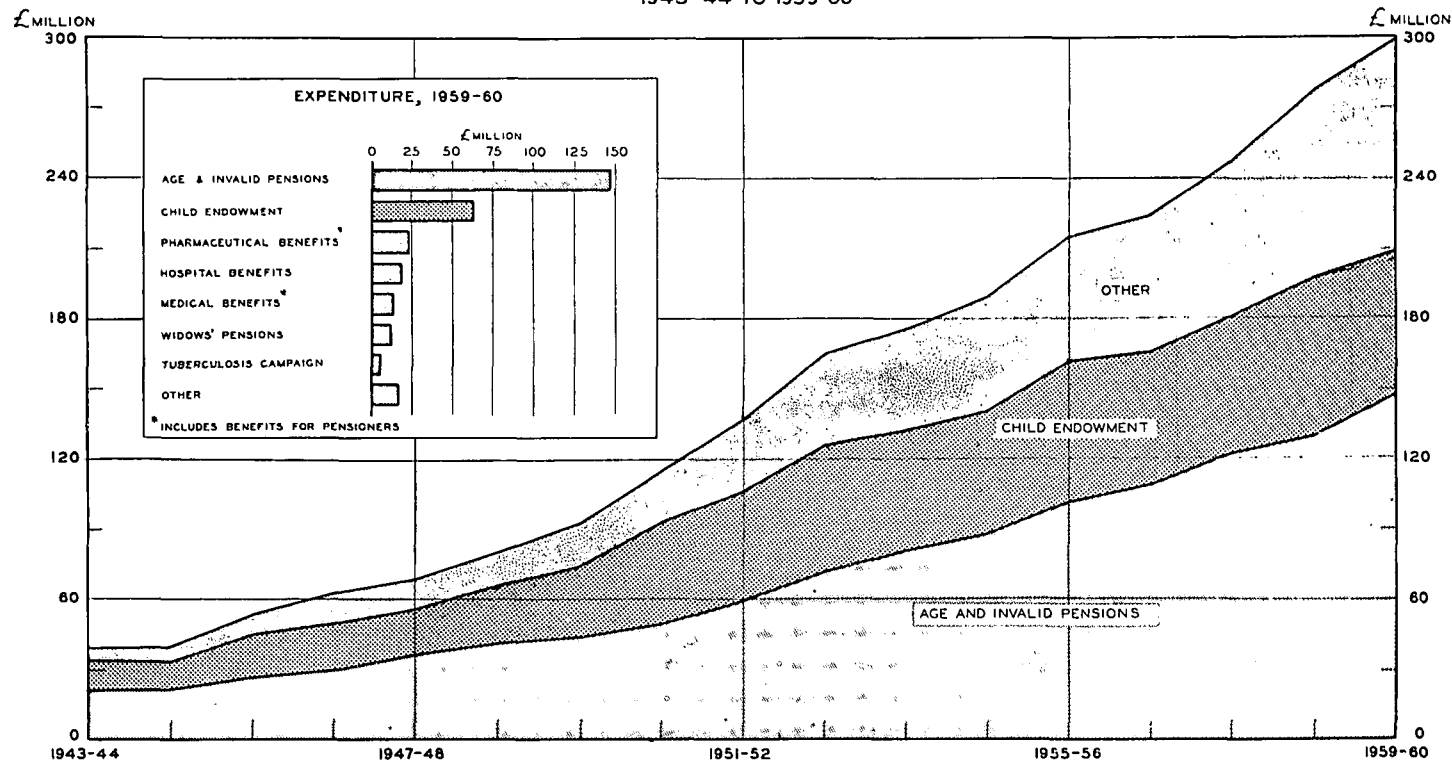
Unemployment and Sickness benefits are paid to men over 16 and under 65 years of age, and women over 16 and under 60 years of age who, through unemployment, sickness or accident, suffer temporary loss of regular earnings. They must have been living in Australia during the preceding twelve months or be likely to remain permanently in Australia. A person receiving an age, invalid or widow's pension, or a service pension (as distinct from a war pension) under the Repatriation Act, or a tuberculosis allowance is ineligible to receive a benefit.

To qualify for an unemployment benefit, a person must establish that he is unemployed and that his unemployment is not due to his being a direct participant in a strike, that he is capable and willing to undertake suitable work, and that he has taken reasonable steps to obtain such work. Registration with the local Commonwealth District Employment Office is necessary.

To qualify for a sickness benefit, a person must establish that he is temporarily incapacitated for work because of sickness or accident and that he has thereby suffered a loss of salary, wages or other income.

COMMONWEALTH EXPENDITURE ON SOCIAL AND HEALTH SERVICES

1943-44 TO 1959-60



A married woman is not eligible to receive a sickness benefit if it is reasonably possible for her husband to maintain her. Where her husband is able to maintain her only partially, a benefit may be paid at such rate as is considered reasonable in the circumstances. In exceptional cases, a married woman may qualify for an unemployment benefit in her own right.

Aboriginal natives, other than those who are nomadic or primitive, are eligible for these benefits on the same conditions as other members of the community.

The maximum weekly rates of benefit payable and permissible income, since the 17th October, 1957, have been as follows:—

Age and Marital Status of Claimant.			Maximum Weekly Rates.	Permissible Weekly Income.
			£ s. d.	£ s. d.
Unmarried person under 18 years of age ..	..	..	1 15 0	1 0 0
Unmarried person 18–20 years of age ..	..	..	2 7 6	1 0 0
All others .. .. .	..	..	3 5 0	2 0 0

An additional benefit of £2 7s. 6d. a week may be paid for a dependent spouse and 10s. for one dependent child under 16 years of age if resident in Australia. If no allowance is paid for a dependent spouse, a similar benefit may be paid for a claimant's housekeeper, provided there are one or more children under 16 years of age in the home and the woman is substantially dependent on the claimant but is not employed by him.

The weekly rate of benefit is reduced by the amount by which a beneficiary's other income exceeds the amount shown in the relevant line of the final column in the above table. For unemployment benefit purposes, the incomes of the claimant and his spouse are taken into account, unless they are permanently separated. For sickness benefit purposes, the income of the claimant only is taken into account, while any payment received from an approved friendly society or other similar approved body in respect of the incapacity for which sickness benefit is payable is disregarded. "Income" does not include child endowment, or other payments for children, Commonwealth hospital and pharmaceutical benefits, or a tuberculosis allowance or an amount paid in reimbursement of medical, dental or similar expenses paid. There is no means test on property.

The amount of compensation, damages or similar payment, or war pension, if paid in respect of the same incapacity as that for which sickness benefit is claimed, is deducted from the sickness benefit. If not paid in respect of the same incapacity, compensation is regarded as income and war pension is ignored.

There is a waiting period of seven days for which unemployment or sickness benefit is not payable. Unemployment and sickness beneficiaries are eligible to participate in the Commonwealth Rehabilitation Service under the same conditions as invalid pensioners.

A special benefit may be granted to a person not qualified for unemployment or sickness benefit who is not receiving an age, invalid or widow's pension or a service pension, if because of age, physical or mental disability or domestic circumstances, or for any other reason, he is unable to earn a sufficient livelihood for himself and his dependants. Special benefits are also paid to migrants who are in reception centres and are awaiting their first placement in employment in Australia. During this time, they receive a short instruction in English and in Australian conditions to facilitate their assimilation into the community and employment.

During the year 1959–60, special benefits were granted to 10,827 migrants at a cost of £62,286.

The following table shows the number admitted to benefit during 1959–60, the number of persons on benefit at 30th June, 1960, and the amount paid for each benefit during 1959–60.

UNEMPLOYMENT, SICKNESS AND SPECIAL BENEFITS, 1959-60.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W.Aust.	Tas.	N.T.	A.C.T.	Aust.
<i>Persons Admitted to Benefit—</i>									
Unemployment—									
Males ..	24,292	12,676	27,904	5,205	10,605	2,472	35	139	83,328
Females ..	9,453	4,959	5,328	2,454	1,884	708	24	86	24,896
Persons ..	33,745	17,635	33,232	7,659	12,489	3,180	59	225	108,224
Sickness—									
Males ..	16,783	9,997	8,030	4,041	4,215	1,518	62	142	44,788
Females ..	6,134	3,675	2,156	1,002	988	365	11	40	14,371
Persons ..	22,917	13,672	10,186	5,043	5,203	1,883	73	182	59,159
Special—									
Ordinary—									
Males ..	616	245	711	146	63	57	3	5	1,846
Females ..	601	896	180	82	75	73	..	10	1,917
Persons ..	1,217	1,141	891	228	138	130	3	15	3,763
Migrants—									
Persons ..	380	9,998	41	408	..	..	..	..	10,827
<i>Total—</i>									
Males(a) ..	41,691	22,918	36,645	9,392	14,883	4,047	100	286	129,962
Females(a) ..	16,188	9,530	7,664	3,538	2,947	1,146	35	136	41,184
Persons(b) ..	58,259	42,446	44,350	13,338	17,830	5,193	135	422	181,973
<i>Persons on benefit at end of year—</i>									
Unemployment—									
Males ..	3,491	2,507	2,311	779	1,931	371	2	7	11,399
Females ..	2,114	1,169	753	601	362	129	1	13	5,142
Persons ..	5,605	3,676	3,064	1,380	2,293	500	3	20	16,541
Sickness—									
Males ..	2,581	1,506	997	451	554	191	4	21	6,305
Females ..	1,001	576	337	152	137	54	1	6	2,264
Persons ..	3,582	2,082	1,334	603	691	245	5	27	8,569
Special—									
Ordinary—									
Males ..	184	124	98	50	61	12	..	..	529
Females ..	511	630	277	116	93	100	..	2	1,729
Persons ..	695	754	375	166	154	112	..	2	2,258
Migrants—									
Persons ..	9	39	..	5	..	..	..	..	53
<i>Total—</i>									
Males(a) ..	6,256	4,137	3,406	1,280	2,546	574	6	28	18,233
Females(a) ..	3,626	2,375	1,367	869	592	283	2	21	9,135
Persons(b) ..	9,891	6,511	4,773	2,154	3,138	857	8	49	27,421
<i>Benefits Paid—</i>									
Unemployment	£ 1,600,995	935,501	1,026,701	249,078	564,492	120,957	859	5,921	4,504,504
Sickness	£ 940,194	546,165	339,379	171,942	163,528	67,678	1,501	7,894	2,238,281
Special (b) ..	£ 138,481	202,086	88,798	36,423	23,897	19,606	174	698	510,163
<i>Total Benefits Paid b £</i>	<i>2,679,670</i>	<i>1,683,752</i>	<i>1,454,878</i>	<i>457,443</i>	<i>751,917</i>	<i>208,241</i>	<i>2,534</i>	<i>14,513</i>	<i>7,252,948</i>

(a) Excludes migrants in reception and training centres.

(b) Includes migrants in reception and training centres.

The following table shows the number of persons who were admitted to benefit, the average number receiving benefit at the end of each week and the amount paid for each benefit for Australia during each of the years 1955-56 to 1959-60:—

UNEMPLOYMENT, SICKNESS AND SPECIAL BENEFITS: SUMMARY, AUSTRALIA.

Year.	Number Admitted to Benefits.			Average Number of Persons on Benefit at end of each week.			Amount Paid in Benefits.		
	Un-employment.	Sick-ness.	Special. (a)	Un-employment.	Sick-ness.	Special. (a)	Un-employment.	Sick-ness.	Special. (b)
1955-56 ..	37,384	55,985	19,417	3,948	7,303	2,504	£ 718,521	£ 1,472,372	£ 372,219
1956-57 ..	96,030	52,791	14,876	12,452	7,006	2,762	2,096,036	1,498,526	404,866
1957-58 ..	143,877	54,517	17,886	23,847	7,262	2,812	4,919,775	1,857,263	553,706
1958-59 ..	145,016	58,680	13,701	27,669	8,242	2,596	5,959,248	2,196,527	496,535
1959-60 ..	108,224	59,159	14,590	21,374	8,755	2,650	4,504,504	2,238,281	510,163

(a) Includes migrants in reception and training centres.

(b) Includes payments to migrants in reception and training centres.

§ 8. Widows' Pensions.

Widows' pensions are payable to the following classes of women. The rates shown have been in operation since 11th October, 1960.

Class. "A"—A widow who has the custody, care and control of one or more children under the age of 16 years—£273 per annum (£5 5s. a week) plus £26 per annum (10s. a week) for each child after the first in her custody, care and control.

Class. "B"—A widow who has no children under 16 years of age in her custody, care and control, and who is not less than 50 years of age or who, after having attained the age of 45 years, ceased to receive a Class "A" widow's pension because she no longer had the custody, care and control of a child—£227 10s. per annum (£4 7s. 6d. a week).

Class. "C"—A widow who is under 50 years of age and has no children under the age of 16 years in her custody, care and control, but is in necessitous circumstances within 26 weeks after the death of her husband—£4 7s. 6d. a week for not more than 26 weeks. If at the time of her husband's death the widow is pregnant, this period will be extended until the child's birth. She may then become eligible for a Class "A" widow's pension.

Widow pensioners may receive supplementary assistance of £26 per annum (10s. a week) if they pay rent and are considered to be dependent entirely on their pensions.

For classes "A" and "B", the term "widow" includes a deserted wife, a divorcee, a woman whose husband has been imprisoned for at least six months, and a woman whose husband is in a mental hospital. Certain "dependent females" may qualify for "A" "B" or "C" Class pensions.

The residential qualification is five years' continuous residence in Australia immediately prior to the date of lodgment of the claim, but this period may be reduced to one year if the widow and her husband were living permanently in Australia when he died. Certain absences count as residence.

A widow's pension is not payable to an alien, a woman receiving an age or invalid pension, a tuberculosis allowance, or a war widow's pension, a woman who has deprived herself of property or income in order to qualify for a pension, or a deserted wife or a divorcee who has not taken reasonable action to obtain maintenance from her husband or former husband. Aboriginal natives, other than those who are nomadic or primitive, are eligible for widows' pensions on the same conditions as other members of the community.

Widow's pensions are subject to a means test on income and property. The pension payable depends on the claimant's *means as assessed*. These consist of her annual rate of income together with a property component equal to £1 for every complete £10 by which the value of her property is in excess of a stipulated sum. In the case of a Class "B" widow, £200 of property is exempt. A Class "A" widow has a basic exemption of £1,000 when the value of her property exceeds £2,250, but no property component is calculated where she has property of no more than £2,250 in value. A Class "A" pension is not payable where a widow has property valued at £5,550 or more; no Class "B" pension is payable where property is £4,300 or more. There is no specific means test for the Class "C" pension, which is paid only where it is evident that a widow has insufficient means of support. The types of income and property disregarded for means test purposes are the same as for age and invalid pensions.

The pension payable to a Class "A" widow may be continued until her child reaches the age of 18 years if the child continues with full-time education at a school or university, is still dependent on the widow and is not in employment.

The number of widows' pensions by class, current at 30th June, 1960, was as follows:—Class "A", 23,240; Class "B", 28,359; Class "C", 87; Class "D", 236; total, 51,922.

From 11th October, 1960, Class "D" was abolished and the women concerned became eligible for Class "A" or Class "B". Class "D" related to women whose husbands had been in prison for at least six months.

The amount paid in pensions during 1959–60 was £12,137,248. The following table shows details of widows' pensions paid in each State and Territory in the year 1959–60:—

WIDOWS' PENSIONS AT 30th JUNE, 1960.

State or Territory.	Pensions Current.			Average Fortnightly Pension.	Amount paid in Pensions during 1958–59.	
	Class "A".	All Classes.	Total per 10,000 of Population.		Amount.	Per head of Population.
				£ s. d.		£ s. d.
New South Wales ..	9,310	20,602	54	9 6 8	4,801,827	1 5 4
Victoria ..	5,281	12,547	43	9 4 5	2,916,500	1 0 6
Queensland ..	4,151	8,340	57	9 7 9	1,999,271	1 7 7
South Australia ..	1,926	4,439	47	9 4 1	1,044,508	1 2 5
Western Australia ..	1,556	4,039	55	9 0 9	913,589	1 5 2
Tasmania ..	924	1,773	51	9 8 10	416,252	1 4 0
Northern Territory ..	33	68	31	9 3 0	9,331	0 8 10
Australian Capital Territory ..	59	114	22	9 11 2	23,940	0 9 7
Overseas ..	(a)	(a)	..	..	12,030	..
Total ..	23,240	51,922	51	9 5 8	12,137,248	1 3 10

(a) Included in figures for State in which pensioner is permanently domiciled.

§ 9. Reciprocal Agreements with Other Countries.

1. **New Zealand.**—An agreement between the governments of Australia and New Zealand for reciprocity in social services came into operation on 1st July, 1949.

The reciprocal arrangements cover age and invalid pensions, widows' pensions, child endowment and unemployment and sickness benefits, and apply to both permanent and temporary changes of residence.

Residence in one country counts as residence in the other country in relation to entitlement to benefits in which a residential qualification applies.

Persons from one country taking up permanent residence in the other country become eligible for any of the specified benefits of the new country under the same conditions (with one or two exceptions) as apply to citizens of that country.

Persons in receipt of any of the specified benefits in one country may continue to receive those benefits while temporarily absent in the other country.

2. **United Kingdom.**—A new reciprocal agreement on social services between the United Kingdom and Australia came into operation on 1st April, 1958, replacing the original agreement which operated from 7th January, 1954.

Under this agreement, residence in one country now counts as residence in the other country as the basis for entitlement to benefits in which a residential qualification applies.

Australians going to the United Kingdom for permanent residence are treated in the United Kingdom as if they had been insured under the National Insurance Scheme while in Australia, so that they can qualify for various National Insurance benefits.

There is also provision for the safeguard of social service rights for persons going from one country to the other for temporary residence.

C. OTHER SERVICES.

§ 1. Benevolent Homes.

1. **General.**—Numerous establishments exist for the housing and protection of persons no longer able to provide for themselves. These homes are supported by government and municipal aid, public subscriptions, bequests, etc. In many cases, relatives of poor and afflicted persons contribute to their maintenance.

An entirely satisfactory statistical tabulation of all forms of charitable aid provided by benevolent institutions is difficult because these services differ considerably.

2. **Principal Institutions.**—Particulars respecting the accommodation and the number of inmates of the principal institutions were published in earlier issues of the Official Year Book (see No. 22, p. 485).

3. **Revenue and Expenditure.**—Details regarding revenue and expenditure for the year 1958–59 are given in the following table.

BENEVOLENT HOMES: REVENUE AND EXPENDITURE, 1958–59.
(£.)

Particulars.	N.S.W.(a)	Vic.	Q'land.	S.Aust.	W.Aust.	Tas.	Australia.
Revenue—							
Government Aid ..	892,314	1,055,890	486,852	119,330	177,927	318,063	3,050,376
Municipal Aid ..	..	693	..	..	..	..	693
Public Subscriptions, Legacies ..	252,261	123,622	52,571	..	740	..	1,686,512
Fees(b) ..		673,528	199,316	27,985	243,724	44,659	
Other ..		16,402	43,244	3,370	4,920	170	
Total ..	1,144,575	1,870,135	781,983	150,685	427,311	362,892	4,737,581
Expenditure—							
Salaries and Wages	545,994	769,604	388,861	96,950	268,829	243,395	2,313,633
Upkeep and Repair of Buildings ..	86,829	60,746	15,431	14,865	32,560	10,486	220,917
All Other ..	315,137	334,037	351,622	32,379	109,532	108,780	1,251,487
Capital (c) ..	196,615	684,929	20,369	6,491	16,390	..	924,794
Total ..	1,144,575	1,849,316	776,283	150,685	427,311	362,661	4,710,831

(a) These figures relate to the three State hospitals and homes only. (b) Includes Commonwealth hospital benefits and age and invalid pension receipts. (c) Includes such items as purchase of land, cost of new buildings and additions to buildings.

4. **The Aged Persons Homes Act.**—The Aged Persons Homes Act which operated from 16th December, 1954, was amended in October, 1957. The purpose of the Act is to encourage the provision of homes in which aged persons may reside in conditions approaching normal domestic life.

To be eligible for assistance under this Act an organization must be—

- carried on otherwise than for purposes of profit or gain to the individual members; and
- a religious organization, an organization the principal objects or purposes of which are charitable or benevolent, an organization of former members of the defence forces established in every State or a State branch of such an organization, or an organization approved by the Governor-General for the purposes of this Act.

An organization conducted or controlled by, or by persons appointed by, the Government of the Commonwealth or of a State or a local governing body established under the law of a State, is not eligible for assistance under this Act.

The Director-General of Social Services may make a grant of money to an organization as assistance towards meeting the cost of the construction or purchase of a home, including land, to be used permanently for the accommodation of aged persons. The grant is made on a £2 for £1 basis with money raised by the organization, not counting money which the organization received from a governmental body or borrowed. Before a grant is made, the Director-General must be satisfied that the sum of the money expended and the money presently available for expenditure by the organization towards the capital cost of the home, together with the amount of the grant, will be not less than the capital cost of the home. Expenditure by the Commonwealth Government was £397,994 in 1955-56, £751,136 in 1956-57, £837,895 in 1957-58, £1,767,470 in 1958-59 and £1,871,748 in 1959-60.

§ 2. Orphanages, Industrial Schools, etc.

1. **General.**—The methods of caring for orphans and neglected children differ extensively, some being placed in orphanages and industrial schools, while others are boarded out with their mothers or female relatives or with approved foster-mothers. The children in orphanages and similar institutions may receive, in addition to primary education, some craft training. In all cases, employment is found for the children on their discharge from the institution, and they remain for some time under the supervision of the proper authorities. The conditions under which orphans, neglected children and children boarded out live are subject to frequent departmental inspections.

2. **Principal Institutions.**—Particulars concerning the principal institutions in each State were published in earlier issues of the Official Year Book (*see* No. 22, p. 486).

3. **Children under Government Authority.**—The following table shows the expenditure by State Departments during 1958-59 in connexion with children under their control or supervision. In addition to neglected children, the figures refer to uncontrollable and convicted children who are wards of a government authority, as well as poor children whose parents obtain assistance from the government without giving up the legal right of custody.

**CHILDREN UNDER GOVERNMENT AUTHORITY: COST OF
MAINTENANCE, 1958-59.**
(£.)

Particulars.	N.S.W.	Vic.(a)	Q'land.	S.Aust.	W.Aust.	Tas.	Aust.
Gross cost of children's relief	1,954,433	1,151,783	547,232	337,314	308,464	79,852	4,379,078
Receipts from parents' contributions, etc. ..	105,050	58,918	38,583	42,931	31,933	6,204	283,619
<i>Net Cost to State</i>	<i>1,849,383</i>	<i>1,092,865</i>	<i>508,649</i>	<i>294,383</i>	<i>276,531</i>	<i>73,648</i>	<i>4,095,459</i>

(a) Year ended 31st December, 1959.

The total expenditure on children's relief in the foregoing table shows considerable variation between the States, owing to the different methods of treating assistance to mothers with dependent children. In South Australia, Western Australia and Tasmania, large amounts have been excluded from the total expenditure on this account, owing to the difficulty of obtaining separate particulars for allowances made in respect of the dependent children only.

§ 3. Protection of Aborigines.

For the protection of the aboriginal Australian race, there are institutions, under the supervision of Aborigines Boards, where these people are housed and encouraged to work, the children receiving elementary education. The work is usually carried on at mission stations, but many of the natives are nomadic and receive food and clothing when they call, while others only rarely come near the stations. The aboriginal race is extinct in Tasmania. The expenditure from Consolidated Revenue in 1959-60 was as follows (figures in brackets are for the year 1958-59):—New South Wales, £239,541 (£204,576); Victoria, £25,000 (£25,000); Queensland, £695,773 (£726,693); South Australia, £357,169 (£365,561); Western Australia, £636,224 (£591,020); Northern Territory, £979,984 (£719,695); Australian Capital Territory, £5,102 (£4,687); Australia, £2,938,793 (£2,637,232).

§ 4. Lifesaving.

There are two life saving organizations in Australia, the Royal Life Saving Society—Australia, and the Surf Life Saving Association of Australia.

The objects of these organizations are the prevention of death from drowning and other forms of asphyxiation; the education of the general public in methods of life saving and resuscitation of the apparently drowned or asphyxiated; technical education in water safety; the encouragement of swimming and life saving in schools and other organizations; the encouragement of all aspects of swimming and aquatics which would assist in saving lives; and the initiation of research within the field of water safety and lifesaving.

The Royal Life Saving Society operates at lakes, rivers, bay and harbour beaches, and the Surf Life Saving Association patrols surf beaches.

Numerous certificates and medallions of proficiency in various grades are awarded.

§ 5. Royal Humane Society.

The Royal Humane Society of Australasia has as its main object the granting of awards to all who with bravery, skill and perseverance risk their own lives in saving or attempting to save those of their fellow creatures. The classes of awards are (a) Gold Medal; (b) Silver Medal; (c) Bronze Medal; and (d) Certificate of Merit. The Clarke Medal is awarded for the outstanding case of the year, and the Rupert Wilks Trophy is awarded for the most outstanding bravery by a child under 13 years of age. About 50 awards are made annually.

§ 6. The Order of St. John.

The Priory in Australia of the Most Venerable Order of the Hospital of St. John of Jerusalem is the governing body of the various activities of the Order which comprises the St. John Ambulance Association, the St. John Ambulance Brigade and the Hospitallers' Clubs in all States and Commonwealth Territories.

Members of the St. John Ambulance Association teach first aid to the injured, home nursing, hygiene and child welfare.

Members of the St. John Ambulance Brigade provide first aid at public functions.

The Hospitallers' Clubs in each State undertake the collection of funds for the St. John Ophthalmic Hospital in Jerusalem, and other duties which tend to bring together all persons interested in the work of the order.

The Order of St. John maintains ambulance transport services in some States, acts as an auxiliary to such services in other States, and provides technical reserves for the medical services of the Crown.

The Lifesaving Medal is awarded by the Order as warranted.

§ 7. Other Charitable Institutions.

Owing to the variety of names and functions of other charitable institutions, it has been found impracticable to give detailed particulars. The aid given in kind—food, clothing, tools of trade, etc.—is considerable, whilst the shelter and treatment afforded range from a bed for a night for casual callers in establishments ministering minor charity, to indoor treatment over long periods in those that exist for the relief of the aged and the infirm. The institutions not particularized include homes for the deaf, dumb and blind, infant homes, homes for the destitute and aged poor, industrial colonies, night shelters, crèches, rescue homes for females, free kindergartens, auxiliary medical charities, free dispensaries, benevolent societies and nursing systems, ambulance and health societies, boys' brigades, humane and animals' protection societies, prisoners' aid associations, shipwreck relief societies, bushfire, flood and mining accident relief funds.

CHAPTER XIX.

LOCAL GOVERNMENT.

§ 1. Introduction.

1. **Local Government Authorities.**—In each State of the Commonwealth, there exists a system of local government whose powers and responsibilities are in general similar, and cover such matters as the construction and maintenance of roads, streets and bridges, water, sewerage and drainage systems, and health and sanitary services, the supervision of building, and the administration of regulations relating to items such as weights and measures, slaughtering, the registration of dogs, etc. In addition to these obligatory functions, there are also many which may be performed by a local government authority either with or without the consent of the ratepayers or the Governor-in-Council. These include transport facilities, electricity, gas, and other business undertakings, hospitals, charitable institutions, recreation grounds, parks, baths, libraries, museums, etc.

The system is based on the principle of a grant of specific powers by the State legislatures to the local authorities, their autonomy, however, being more or less limited by the provision for general supervision by a department of the central government or by the Governor-in-Council. Otherwise, within the scope of the Acts under which they are constituted or which they have to administer, they are responsible only to the ratepayers.

While the broad pattern of local government throughout the States of Australia is similar, the range of activities, election of officers, methods of valuation and rating powers, etc., differ considerably.

The areas over which local government bodies exercise general control, numbering 904, are known in New South Wales as cities, municipalities and shires; in Victoria as cities, towns, boroughs and shires; in Queensland as cities, towns and shires; in South Australia as cities, corporate towns and district council areas; in Western Australia as cities, towns and shires;* and in Tasmania as cities and municipalities. In New South Wales, some local government authorities in an area have combined to provide services such as electricity, water, sewerage and drainage—e.g., the county councils. Within shires, there are also some municipal units known as urban areas. Apart from the more thinly populated parts of New South Wales and South Australia, and the Commonwealth Territories, practically the whole of Australia comes within local government jurisdiction.

The financial statistics in § 2 following are classified under the headings of Ordinary Services and Business Undertakings. The former covers the obligatory and general functions referred to above. Business Undertakings include public utilities such as water supply, sewerage, electricity, gas, transport and hydraulic power undertakings, and other miscellaneous works such as abattoirs, quarries, ice works, cinemas, etc.

2. **Semi-Governmental Authorities.**—In addition to local government authorities, a large number of authorities have been set up to control specific activities, which are often identical with some of those performed by either, or both, of the other classes of public authority—central government and local government—and a complete picture of any field of activity for a State or Australia as a whole cannot be obtained without reference to each class operating in that particular field. These semi-governmental authorities differ primarily from local government authorities in that their operations are restricted to the specific activity for which they were constituted—e.g., roads and bridges, water and sewerage, electricity and irrigation, harbours, or tramways, etc.—i.e. each dispenses a specific service throughout an area as distinct from the general services of the local authority.

In §§ 3 to 7, which deal with debt, roads and bridges, water supply and sewerage, harbours, and fire brigades, particulars are included of the more important of these authorities which operate within the range covered by this chapter.

3. **Roads, Bridges, etc.**—The construction and maintenance of roads, bridges and ferries are generally part of the functions of local authorities, but in each State there exists a central road authority or a government department whose duties relate to the construction, reconstruction and maintenance of "main" and "developmental" roads, the distribution of funds to local bodies, and the supervision and co-ordination of road construction and policy throughout the State. Although roads and bridges constructed and maintained.

* Commencing 1st July, 1961—formerly known as cities, municipalities and road districts.

directly by the government or by the central road authority do not properly come under the heading of "Local Government", they have been included in this chapter for the sake of convenience. Owing to difficulty in obtaining complete particulars of receipts and expenditure of the various local governing bodies in respect of roads under their control, the details of receipts and expenditure given in § 4 are those of central governments only, relating either to the supervisory board or commission in the State or to direct activities of a department. However, estimates of the aggregate net expenditure of all public authorities concerned with roads and bridges in Australia are given in paragraph 9 of that section. In § 2, some information is given of the revenue and expenditure of local government authorities in respect of roads.

4. **Water Supply and Sewerage.**—In the cities of Sydney and Melbourne, the control of water supply and sewerage is in the hands of special boards, while in Adelaide and Perth these services are under the direct supervision of government departments. In most of the other cities and towns, the municipal councils or, in some cases, water trusts, are the controlling bodies, which either construct the works out of their own resources or take them over after they have been constructed by the government.

5. **Harbours.**—The majority of the harbours in Australia are managed by boards, the members of which are either elected by persons interested, or appointed by the government. In some instances, however, they are directly controlled by the government.

6. **Fire Brigades.**—In all the States, the management of fire brigades is undertaken by boards. These boards usually comprise members elected by the councils of municipalities and insurance companies within the districts placed under their jurisdiction, and one or more members appointed by the government. Occasionally, volunteer or country fire brigades are represented.

7. **Other Local or Semi-Governmental Activity.**—The activities referred to above are not the only forms of local or semi-governmental undertakings. There are others, the most important being tramways and omnibus services, and electricity and gas undertakings, which are not dealt with in this chapter except to the extent that they are represented in the finances as shown in the following section. Chapter XIV., Transport and Communication, contains information on municipal transport services, and Chapter VII., Electric Power Generation and Distribution, deals with the various types of electricity undertakings in each State. In addition, particulars of municipal electricity and gas undertakings, although not shown separately, are included in the relevant sections in Chapter VI., Manufacturing Industry.

§ 2. Local Government Authorities.

1. **New South Wales.**—For purposes of local government, the whole of the Eastern and Central land divisions and a small portion of the sparsely populated Western division have been divided into cities, municipalities (most principal towns) and shires (mainly large rural areas, some of which embrace important towns). At the end of 1958, the area incorporated was 251,000 square miles, or nearly five-sixths of the total area of the State.

All local government authorities in the State are subject to the general provisions of the Local Government Act.

Municipalities and shires may combine to form county councils for the establishment and conduct of services of joint benefit, e.g., electricity, water, sewerage. At 31st December, 1958, there were 51 county councils including the Sydney County Council.

2. **Victoria.**—Local government is established throughout the State, the various divisions being termed cities, towns, boroughs or shires. The only unincorporated areas are French Island (42,000 acres) in Westernport Bay, Julia Percy Island (650 acres) off Port Fairy, and Tower Hill (1,460 acres) adjacent to the Borough of Kororoit. Melbourne and Geelong were incorporated under special statutes prior to the establishment of a general system of local government, but are now subject to several provisions of the Local Government Act.

3. **Queensland.**—The whole of the State (except certain islands along the coast, the Dawson Valley Irrigation Area and the Somerset Dam Area) is incorporated into cities, towns and shires under the Local Authorities Act 1902 and its amendments.

4. **South Australia.**—The settled portion of South Australia is incorporated, being mostly under municipal corporations in the larger cities and towns, and district councils in the agricultural areas.

5. **Western Australia.**—Local government is established throughout the State, the divisions since 1st July, 1961, being cities, towns and shires (formerly cities, municipalities and road districts).

6. **Tasmania.**—The whole State is divided into municipal districts, Hobart and Launceston being incorporated as cities under separate Acts.

7. **Area, Population, Dwellings and Value of Ratable Property.**—The area, population, dwellings and value of ratable property in the incorporated areas of each State are shown for the year 1958–59 in the following tables. The valuations relate to ratable property only and exclude Government and other non-ratable property, whose value in the aggregate is considerable. In this table, particulars of dwellings are in accordance with the definition used in the 1954 Census, and are compiled from information collected on the Census Schedules. For the purpose of the Census, a dwelling was defined as any habitation occupied by a household group living together as a domestic unit, whether comprising the whole or only part of a building. The term has, therefore, a very wide meaning and includes, in addition to houses and flats, a great variety of dwellings ranging from a single-roomed shack to a multi-roomed hotel or institution. Unoccupied dwellings include "week-end" and holiday dwellings and other dwellings temporarily unoccupied on the night of the Census. Dwellings being built are not included.

LOCAL GOVERNMENT AUTHORITIES: AREA, POPULATION, DWELLINGS AND VALUE OF RATABLE PROPERTY, 1958-59.

Local Bodies.	Number.	Area. '000 Acres.	Popula- tion. '000	Dwellings.		Value of Ratable Property.		
				Occu- pied.	Unoccu- pied.	Unim- proved Capital Value.	Im- proved Capital Value.	Annual Value.
				No. (a)	No. (a)	£'000.	£'000.	£'000.
NEW SOUTH WALES.(b)								
Metropolitan—								
Capital City	1	7	184	52,763	1,099	156,741	453,377	24,581
Other	34	702	1,862	470,664	13,464	539,014	2,041,949	117,219
Outside Metropolitan Area	192	159,626	1,631	385,517	28,128	508,052	(c)	(c)
Total	227	160,335	3,677	908,944	42,691	1,203,807	(c)	(c)
VICTORIA.(d)								
Metropolitan—								
Capital City	1	8	89	22,348	455	(c)	225,973	11,299
Other	41	603	1,703	371,340	6,316	(c)	1,328,536	67,373
Outside Metropolitan Area(e)	163	55,500	1,009	267,089	20,713	(c)	1,005,216	50,509
Total	205	56,111	2,801	660,777	27,484	(c)	2,559,725	129,181
QUEENSLAND.(f)								
Capital City	1	246	567	133,064	3,948	69,148	(c)	(c)
Outside Metropolitan Area	132	425,980	867	205,598	17,436	184,160	(c)	(c)
Total	133	426,226	1,434	338,662	21,384	253,308	(c)	(c)
SOUTH AUSTRALIA.(f)								
Metropolitan—								
Capital City	1	4	28	7,454	211	40,761	103,000	5,171
Other	20	100	536	126,649	2,737	(c)	335,000	16,737
Outside Metropolitan Area	122	36,375	342	78,505	5,399	(c)	387,000	19,340
Total	143	36,479	906	212,608	8,347	(c)	825,000	41,248
WESTERN AUSTRALIA.(g)								
Metropolitan—								
Capital City	1	15	102	25,460	577	1,759	(c)	5,523
Other	19	107	287	65,281	1,262	39,752	(c)	2,660
Outside Metropolitan Area	127	624,466	330	72,082	4,775	52,885	(c)	1,642
Total	147	624,588	719	162,823	6,614	94,396	(c)	9,825

NOTE.—See next page for footnotes.

**LOCAL GOVERNMENT AUTHORITIES: AREA, POPULATION, DWELLINGS
AND VALUE OF RATABLE PROPERTY, 1958-59—continued.**

Local Bodies.	Num- ber.	Area. '000 Acres.	Popula- tion. '000	Dwellings.		Value of Ratable Property.		
				Occu- pied.	Unoccu- pied.	Unim- proved Capital Value.	Im- proved Capital Value.	Annual Value.
				No. (a)	No. (a)	£'000.	£'000.	£'000.
TASMANIA.(f)								
Metropolitan—								
Capital City	1	18	55	14,624	375	21,893	81,235	4,230
Other	2	99	51	9,333	531	9,735	46,293	2,094
Outside Metropolitan Area	46	16,661	236	54,905	4,382	50,702	199,413	10,383
Total	49	16,778	342	78,862	5,288	82,330	326,741	16,707

(a) Particulars of dwellings are as at Census 30th June, 1954. (b) Year ended 31st December, 1958. (c) Not available. (d) Year ended 30th September, 1959. (e) Excludes Yallourn Works Area under the jurisdiction of the State Electricity Commission. (f) Year ended 30th June, 1959. (g) Municipalities—Year ended 31st October, 1959; Road Districts—Year ended 30th June, 1959.

8. **Finances.**—(i) *General.* The following tables show the latest available financial statistics for local government authorities. The figures relate to the year 1958-59, except for New South Wales, where they relate to the year 1958.

For further detail on local government finances see *Finance Part I.—Public and Private Finance*, Bulletin No. 51, 1959-60 issued by this Bureau.

(ii) *Ordinary Services.* In the returns of revenue and expenditure for 1958-59 in the following tables, the proceeds from loans and expenditure thereof have been excluded. The financial operations of business undertakings controlled by the various local government authorities are given in the next paragraph. The profits resulting from the working of these undertakings, where taken into general revenue, have been included.

**LOCAL GOVERNMENT AUTHORITIES: ORDINARY SERVICES—REVENUE AND
EXPENDITURE, 1958-59.**

Particulars.	N.S.W. (a)	Vic. (b)	Q'land. (c)	S. Aust. (c)	W. Aust. (d)	Tas. (e)	Total.
Number of Local Government Authorities	227	205	133	143	147	49	904

REVENUE (EXCLUDING LOAN RECEIPTS). (£'000.)

Taxation—							
Rates (net)	33,275	20,241	12,810	5,530	3,633	2,102	77,591
Penalties	228	69	..	..	..	..	297
Licences	605	137	121	75	59	15	1,012
Total	34,108	20,447	12,931	5,605	3,692	2,117	78,900
Public Works and Services—							
Sanitary and Garbage Services	3,566	1,558	3,090	63	471	93	8,841
Council Properties	2,981	(e) 4,017	601	376	1,071	239	9,285
Street Construction	1,670	1,311	..	(f) 1,088	308	14	4,391
Other	2,809	213	226	78	50	213	3,589
Total	11,026	7,099	3,917	1,605	1,900	559	26,106
Government Grants—							
Roads	9,640	204	1,778	2,423	1,113	247	15,405
Other	1,172	969	539	51	1,547	28	4,306
Total	10,812	1,173	2,317	2,474	2,660	275	19,711
Profits from Business Undertakings .. ..	..	325	..	..	43	..	368
Fees and Fines .. ..	..	166	..	147	54	..	367
All Other .. ..	..	246	(g) 4,453	146	195	196	5,236
Total Revenue	55,946	29,456	23,618	9,977	8,544	3,147	130,688

NOTE.—See next page for footnotes.

LOCAL GOVERNMENT AUTHORITIES: ORDINARY SERVICES—REVENUE AND EXPENDITURE, 1958-59—continued.

Particulars.	N.S.W. (a)	Vic. (b)	Q'land. (c)	S. Aust. (e)	W. Aust. (d)	Tas. (c)	Total.
EXPENDITURE (EXCLUDING LOAN EXPENDITURE). (£'000.)							
General Administration ..	3,612	4,471	2,014	900	1,006	391	12,394
Debt Services (excluding Business Undertakings)—							
Interest ..	1,838	1,281	1,865	215	414	141	5,754
Redemption ..	3,653	1,569	2,656	550	719	211	9,358
Exchange ..	20	..	118	..	..	..	138
Other ..	..	43	9	..	..	..	52
Total ..	5,511	2,893	4,648	765	1,133	352	15,302
Public Works and Services—							
Roads, Streets and Bridges ..	25,796	9,433	6,980	6,280	2,434	1,329	52,252
Health Administration ..	1,079	343	2,640	137	238	92	13,179
Sanitary and Garbage Services ..	4,457	3,174					
Street Lighting ..	1,214	611	351	207	116	89	2,588
Council Properties ..	6,940	(h) 6,125	2,480	870	2,521	426	19,362
Other ..	1,980	336	264	152	62	114	2,908
Total ..	41,466	20,022	12,715	8,010	5,906	2,170	90,289
Grants—							
Fire Brigades ..	347	458	143	128	107	46	1,229
Hospitals and Ambulances ..	196	96	..	190	13	..	512
Other Charities ..	(i) 1,200	(i) 1,232	550	14	19	10	3,025
Other ..	1,743	1,786	693	349	139	56	4,766
Total ..	1,692	160	(k) 3,114	..	159	180	5,305
All Other ..	54,024	29,332	23,184	10,024	8,343	3,149	128,056

(a) Figures for New South Wales relate to the year ended 31st December, 1958, and are on an income and expenditure basis as distinct from those of other States which are on a cash basis. (b) Year ended 30th September, 1959. (c) Year ended 30th June, 1959. (d) Municipalities—Year ended 31st October, 1959, Road Districts—Year ended 30th June, 1959. (e) Includes £1,795,000 plant hire.

(f) Includes £111,000 reimbursement from Highways Department. (g) Includes the following reimbursements: £1,541,000 from Main Roads Department, £352,000 from other State Government Departments and £946,000 from other sources. (h) Includes £1,846,000 plant and equipment. (i) To Main Roads Department. (j) Includes £699,000 to Country Roads Board.

(k) Includes expenditure on work done: for Main Roads Department £1,537,000; for other State Government Departments £347,000; Other £894,000.

The following table shows the revenue and expenditure (excluding loan) of local government authority ordinary services for the years 1954-55 to 1958-59:—

LOCAL GOVERNMENT AUTHORITIES: ORDINARY SERVICES—REVENUE AND EXPENDITURE.
(£'000.)

Year ended 30th June.	N.S.W.(a)	Victoria.(b)	Q'land.	S. Aust.	W. Aust.(c)	Tas.	Total.
REVENUE (EXCLUDING LOAN RECEIPTS).							
1955 ..	36,348	18,813	(d)	6,560	5,917	2,190	(d)
1956 ..	41,135	21,624	(d)	7,565	6,559	2,360	(d)
1957 ..	45,570	24,840	19,623	8,694	7,404	2,721	108,852
1958 ..	52,440	26,742	21,654	9,313	7,966	2,848	120,963
1959 ..	55,946	29,456	23,618	9,977	8,544	3,147	130,688
EXPENDITURE (EXCLUDING LOAN EXPENDITURE).							
1955 ..	35,003	18,914	(d)	6,935	5,950	2,240	(d)
1956 ..	40,938	22,215	(d)	7,828	6,804	2,452	(d)
1957 ..	46,403	25,299	19,503	8,921	7,232	2,697	110,055
1958 ..	50,510	27,210	20,870	9,115	7,751	2,828	118,284
1959 ..	54,024	29,332	23,184	10,024	8,343	3,149	128,056

(a) Years ended previous 31st December. (b) Years ended 30th September. (c) Municipalities—Years ended 31st October; Road Districts—Years ended 30th June. (d) Not available.

(iii) *Business Undertakings.* The tables hereunder show, for 1958–59, particulars of the revenue and expenditure, other than loan, of business undertakings under the control of local government authorities. These particulars are not included in the foregoing tables.

LOCAL GOVERNMENT AUTHORITIES: BUSINESS UNDERTAKINGS—REVENUE AND EXPENDITURE, 1958–59.
(£'000.)

Particulars.	N.S.W.	Vic.	Q'lanl.	S. Aust.	W. Aust.	Tas.	Total.
REVENUE (EXCLUDING LOAN RECEIPTS).							
<i>Water Supply and Sewerage—</i>							
Rates	2,712	263	45	..	6	797	3,823
Charges for Services and Sales of Products	772	..	3,468	2	45	135	4,422
Other (including Grants)	(a) 667	14	301	..	5	178	1,165
<i>Total</i>	<i>4,151</i>	<i>277</i>	<i>3,814</i>	<i>2</i>	<i>56</i>	<i>1,110</i>	<i>9,410</i>
<i>Electricity and Gas—</i>							
Rates	397	..	3	..	..	..	400
Charges for Services and Sales of Products	56,951	13,769	6,200	496	668	..	78,084
Other (including Grants)	1,192	242	149	22	11	..	1,616
<i>Total</i>	<i>58,540</i>	<i>14,011</i>	<i>6,352</i>	<i>518</i>	<i>679</i>	<i>..</i>	<i>80,100</i>
<i>Railways, Tramways and Omnibuses—</i>							
Rates .. .. .	..	..	..	..	..	..	..
Charges for Services and Sales of Products .. .. .	..	..	3,634	..	..	..	3,634
Other (including Grants) .. .. .	..	..	133	..	..	..	133
<i>Total</i>	<i>..</i>	<i>..</i>	<i>3,767</i>	<i>..</i>	<i>..</i>	<i>..</i>	<i>3,767</i>
<i>Other—</i>	(b)	(c)	(d)	(e)	(f)	(g)	..
Rates	7	..	11	..	..	..	18
Charges for Services and Sales of Products	3,664	938	165	41	36	157	5,001
Other (including Grants)	16	16	4	2	..	5	43
<i>Total</i>	<i>3,687</i>	<i>954</i>	<i>180</i>	<i>43</i>	<i>36</i>	<i>162</i>	<i>5,062</i>
<i>Grand Total</i>	<i>66,378</i>	<i>15,242</i>	<i>14,113</i>	<i>563</i>	<i>771</i>	<i>1,272</i>	<i>98,339</i>
EXPENDITURE (EXCLUDING LOAN EXPENDITURE).							
<i>Water Supply and Sewerage—</i>							
Working Expenses	1,891	192	1,840	2	40	505	4,470
Depreciation	(h) -188	16	..	..	..	..	-172
Debt Charges	1,612	35	1,441	..	10	537	3,635
Other (including Transfers to General Revenue and Construction) .. .. .	..	10	463	..	..	95	568
<i>Total</i>	<i>3,315</i>	<i>253</i>	<i>3,744</i>	<i>2</i>	<i>50</i>	<i>1,137</i>	<i>8,501</i>
<i>Electricity and Gas—</i>							
Working Expenses	50,025	12,200	3,931	457	521	..	67,134
Depreciation	(h) 1,424	365	..	..	61	..	1,850
Debt Charges	5,534	465	1,968	41	59	..	8,067
Other (including Transfers to General Revenue and Construction) .. .. .	..	565	270	14	22	..	871
<i>Total</i>	<i>56,983</i>	<i>13,595</i>	<i>6,169</i>	<i>512</i>	<i>663</i>	<i>..</i>	<i>77,922</i>
<i>Railways, Tramways and Omnibuses—</i>							
Working Expenses .. .. .	..	..	3,597	..	..	..	3,597
Depreciation .. .. .	..	..	..	..	..	..	..
Debt Charges .. .. .	..	..	459	..	..	..	459
Other (including Transfers to General Revenue and Construction) .. .. .	..	..	152	..	..	..	152
<i>Total</i>	<i>..</i>	<i>..</i>	<i>4,208</i>	<i>..</i>	<i>..</i>	<i>..</i>	<i>4,208</i>
<i>Other—</i>	(b)	(c)	(d)	(e)	(f)	(g)	..
Working Expenses	3,340	756	152	38	33	97	4,416
Depreciation	31	38	..	..	..	..	69
Debt Charges	108	87	18	..	1	16	230
Other (including Transfers to General Revenue and Construction) .. .. .	..	86	5	4	..	19	114
<i>Total</i>	<i>3,479</i>	<i>967</i>	<i>175</i>	<i>42</i>	<i>34</i>	<i>132</i>	<i>4,829</i>
<i>Grand Total</i>	<i>63,777</i>	<i>14,815</i>	<i>14,296</i>	<i>556</i>	<i>747</i>	<i>1,269</i>	<i>95,460</i>

(a) Includes Government grant, £590,000, for part of cost of new works borne by Government.
 (b) Abattoirs, ice-works, and production of building materials. (c) Abattoirs and hydraulic power undertakings.
 (d) Municipal markets, amusement parks, hotels, and cinemas. (e) Quarries.
 (f) Quarries, ice-works and abattoirs. (g) Abattoirs. (h) Net balance after deducting charge for debt redemption. The full amount of charge for debt redemption is included under debt charges.
 NOTE.—For years to which particulars relate, see following table. Minus sign (–) indicates an excess of credits.

The next table shows the revenue and expenditure, other than loan, of local government business undertakings for the years 1954-55 to 1958-59.

LOCAL GOVERNMENT AUTHORITIES: BUSINESS UNDERTAKINGS—REVENUE AND EXPENDITURE.
(£'000.)

Year ended 30th June.	N.S.W.(a)	Victoria.(b)	Q'land.	S. Aust.	W. Aust.(c)	Tas.	Total.
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REVENUE (EXCLUDING LOAN RECEIPTS).

1955 ..	46,972	8,770	(d)	547	569	1,296	(d)
1956 ..	51,312	9,995	(d)	592	628	833	(d)
1957 ..	55,392	11,462	12,651	527	644	988	81,664
1958 ..	61,526	13,021	13,175	548	702	1,151	90,123
1959 ..	66,378	15,242	14,113	563	771	1,272	98,339

EXPENDITURE (EXCLUDING LOAN EXPENDITURE).

1955 ..	43,616	8,611	(d)	558	547	1,286	(d)
1956 ..	48,442	9,800	(d)	576	627	846	(d)
1957 ..	53,470	11,105	13,118	510	637	934	79,774
1958 ..	58,007	12,541	13,533	561	704	1,123	86,469
1959 ..	63,777	14,815	14,296	556	747	1,269	95,460

(a) Years ended previous 31st December. (b) Years ended 30th September. (c) Municipalities—Years ended 31st October; Road Districts—Years ended 30th June. (d) Not available.

(iv) *Loan Expenditure.* The tables below show particulars for 1958-59 of loan expenditure on works connected with the ordinary services and the business undertakings of local government authorities.

LOCAL GOVERNMENT AUTHORITIES: LOAN EXPENDITURE, 1958-59.
(£'000.)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
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ORDINARY SERVICES.

Roads, Bridges, Streets, Footpaths, Drainage and Sewerage	2,907	2,475	4,243	1,090	823	370	11,908
Council Properties	(a) 2,395	1,330	1,259	132	668	323	6,107
Parks, Gardens and Recrea- tional Reserves	258	252	157	20	474	114	1,275
Other	(b) 381	256	566	71	128	5	1,407
Total	5,941	4,313	6,225	1,313	2,093	812	20,697

BUSINESS UNDERTAKINGS.

Water Supply	1,169	297	3,771	..	..	958	7,066
Sewerage	820	..	..	..	51	..	..
Electricity and Gas	9,462	1,164	2,534	54	93	..	13,307
Railways, Tramways and Omnibuses .. ..	..	..	145	..	..	..	145
Abattoirs	194	44	..	..	..	..	238
Other .. ..	..	..	14	..	..	..	14
Total	11,645	1,505	6,464	54	144	958	20,770
Grand Total	17,586	5,818	12,689	1,367	2,237	1,770	41,467

(a) Includes plant. (b) Includes advances for homes, £38,000.

NOTE.—For years to which particulars relate, see following table.

The following table shows the loan expenditure on works connected with local government ordinary services and business undertakings during the years 1954–55 to 1958–59:—

LOCAL GOVERNMENT AUTHORITIES: LOAN EXPENDITURE.
(£'000.)

Year ended 30th June.	N.S.W.(a)	Victoria.(b)	Q'land.	S. Aust.	W. Aust.(c)	Tas.	Total
ORDINARY SERVICES.							
1955 ..	4,313	2,511	(d)	959	1,121	404	(d)
1956 ..	6,100	3,088	(d)	1,112	1,486	477	(d)
1957 ..	5,857	3,711	4,596	924	1,334	580	17,002
1958 ..	5,644	4,215	5,673	1,077	1,580	455	18,644
1959 ..	5,941	4,313	6,225	1,313	2,093	812	20,697
BUSINESS UNDERTAKINGS.							
1955 ..	9,037	1,282	(d)	45	90	800	(d)
1956 ..	9,569	1,140	(d)	25	49	888	(d)
1957 ..	9,656	1,300	5,348	58	36	761	17,159
1958 ..	11,024	1,796	5,022	99	159	1,163	19,263
1959 ..	11,645	1,505	6,464	54	144	958	20,770

(a) Years ended previous 31st December. (b) Years ended 30th September. (c) Municipalities—Years ended 31st October; Road Districts—Years ended 30th June. (d) Not available.

§ 3. Local and Semi-Governmental Authorities' Debt.

1. **General.**—Statistics of local and semi-governmental debt for the years 1954–55 to 1958–59 are given in the following paragraph. The information covers all local government authorities and those semi-governmental authorities responsible for the provision of the following services:—

New South Wales. Water Supply, Sewerage and Drainage, Electricity Supply, Fire Brigades, and Banking. County Councils are included among these authorities.

Victoria. Water Supply and Sewerage, Irrigation and Drainage, Harbours, Tramways, Electricity and Gas Supply, Fire Brigades, Marketing (Buying and Selling), Industry Assistance, Grain Elevators, Housing, and Miscellaneous.

Queensland. Water Supply and Sewerage, Irrigation and Drainage, Harbours, Electricity Supply, Fire Brigades, University, Hospitals and Ambulances, Marketing (Buying and Selling and Agency), and Industry Assistance.

South Australia. Irrigation and Drainage, Tramways, Electricity Supply, Fire Brigades, Hospitals and Ambulances, Marketing (Agency), Industry Assistance, Banking, Housing, and Miscellaneous.

Western Australia. Water Supply and Sewerage, Irrigation and Drainage, Harbours, Tramways, Electricity Supply, Fire Brigades, Hospitals and Ambulances, Marketing (Agency), Housing and University of Western Australia.

Tasmania. Harbours, Electricity Supply, Fire Brigades, Transport, and Housing.

A detailed list of the authorities included is shown in *Finance, Part I.—Public and Private Finance*, Bulletin No. 51, 1959–60.

2. **Local and Semi-Governmental Authorities' Debt.**—The following table provides a summary of new money loan raisings, provisions for debt redemption, debt outstanding and interest payable by local and semi-governmental authorities for the year ended 30th June, 1959. For greater detail, see *Finance, Part I.—Public and Private Finance*, Bulletin No. 51, 1959–60.

LOCAL AND SEMI-GOVERNMENTAL AUTHORITIES: NEW MONEY LOAN RAISINGS, REDEMPTION, DEBT AND INTEREST PAYABLE, 1958-59.

(£'000.)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
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LOCAL GOVERNMENT AUTHORITIES.

<i>New Money Loan Raisings—</i>							
From Government ..	22	526	866	470	37	72	1,993
From Public ..	9,464	5,207	10,098	926	2,197	1,770	29,662
<i>Total ..</i>	<i>9,486</i>	<i>5,733</i>	<i>10,964</i>	<i>1,396</i>	<i>2,234</i>	<i>1,842</i>	<i>31,655</i>
<i>Funds Provided for Redemption—</i>							
Government Loans ..	42	48	1,033	343	13	12	1,491
Loans due to Public ..	4,529	2,168	3,207	229	814	456	11,403
<i>Total ..</i>	<i>4,571</i>	<i>2,216</i>	<i>4,240</i>	<i>572</i>	<i>827</i>	<i>468</i>	<i>12,894</i>
Accumulated Sinking Fund Balance ..	4,283	3,385	6,184	..	60	194	14,106
<i>Debt—</i>							
Due to Government ..	1,935	1,388	13,490	1,337	289	366	18,805
Due to Banks (Net Overdraft) ..	25	656	..	..	5	..	686
Due to Public Creditor(a) ..	68,475	36,649	81,327	4,633	9,714	11,123	211,921
<i>Total(a) ..</i>	<i>70,435</i>	<i>38,693</i>	<i>94,817</i>	<i>5,970</i>	<i>10,008</i>	<i>11,489</i>	<i>231,412</i>
Maturing Overseas(a)(b) ..	1,812	..	2,372	..	..	..	4,184
Annual Interest Payable(a) ..	(c)	1,829	4,353	257	497	554	(c)

SEMI-GOVERNMENTAL AND PUBLIC AUTHORITIES.

<i>New Money Loan Raisings—</i>							
From Government ..	15,759	16,139	1,550	9,870	3,747	7,177	54,242
From Public ..	20,268	38,046	8,169	3,339	2,680	1,187	73,689
<i>Total ..</i>	<i>36,027</i>	<i>54,185</i>	<i>9,719</i>	<i>13,209</i>	<i>6,427</i>	<i>8,364</i>	<i>127,931</i>
<i>Funds Provided for Redemption—</i>							
Government Loans ..	1,103	4,458	759	796	537	591	8,244
Loans due to Public ..	5,967	3,072	3,312	22	344	217	12,934
<i>Total ..</i>	<i>7,070</i>	<i>7,530</i>	<i>4,071</i>	<i>818</i>	<i>881</i>	<i>808</i>	<i>21,178</i>
Accumulated Sinking Fund Balance ..	24,465	10,300	5,242	1,082	710	83	41,882
<i>Debt—</i>							
Due to Government ..	159,263	188,184	15,624	109,904	40,860	78,573	592,408
Due to Banks (Net Overdraft) ..	2,599	3,029	669	113	..	..	6,410
Due to Public Creditor(a) ..	244,979	388,000	68,237	28,529	18,048	14,340	762,163
<i>Total(a) ..</i>	<i>406,841</i>	<i>579,213</i>	<i>84,530</i>	<i>138,546</i>	<i>58,908</i>	<i>92,913</i>	<i>1,360,951</i>
Maturing Overseas(a)(b) ..	5,000	4,330	..	..	..	..	9,330
Annual Interest Payable(a) ..	(c)	24,917	3,990	6,053	2,715	3,884	(c)

(a) Includes debt or interest payable in London and New York. The former is expressed in United Kingdom currency, the latter is payable in dollars which have been converted at the rate of \$4.8665 to £1.

(b) Included in debt figures above.

(c) Not available.

In this and the following tables, debt includes all liabilities for which arrangements have been made for repayment over a period of one year or more, and net overdrafts. Interest capitalized and amounts due for the capital cost of assets or for services rendered which are to be repaid over a period of one year or more are included. Current liabilities, such as interest accrued (but not capitalized), trade creditors, amounts held in trust and other debts which are to be repaid in less than one year are not included. Net overdraft is the gross overdraft of all funds less all bank credit balances (including fixed deposits) which do not form part of a sinking fund to repay a loan. New loans raised during the year include new loan liabilities incurred during the year, loans raised from the public to repay indebtedness to the Government, and interest capitalized. Loans raised and redeemed within the year, increases in overdrafts and loans raised for conversion or redemption of existing debt are excluded. Funds provided for redemption include instalments of principal repaid and amounts credited to sinking funds established for the purpose of repaying the debt on maturity. Amounts provided for redemption from loans raised for that purpose are excluded.

In the following table, a summary is given of new money loan raisings, provisions for the redemption of debt and debt outstanding of local and semi-governmental authorities for the years 1954-55 to 1958-59.

**LOCAL AND SEMI-GOVERNMENTAL AUTHORITIES, AUSTRALIA: NEW
MONEY LOAN RAISINGS, REDEMPTION AND DEBT.**
(£'000.)

Particulars.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
LOCAL GOVERNMENT AUTHORITIES.					
<i>New Money Loan Raisings—</i>					
From Government	3,413	2,233	1,624	1,775	1,993
From Public	24,352	22,160	25,046	27,445	29,662
<i>Total</i>	27,765	24,393	26,670	29,220	31,655
<i>Funds provided for Redemption—</i>					
Government Loans	1,477	1,555	1,569	1,578	1,491
Loans due to Public	8,151	8,597	9,222	9,120	11,403
<i>Total</i>	9,628	10,152	10,791	10,698	12,894
Accumulated Sinking Fund Balance	11,493	11,955	12,865	13,710	14,106
<i>Debt—</i>					
Due to Government	17,265	17,907	17,753	17,922	18,805
Due to Banks (Net Overdraft) ..	362	948	637	448	686
Due to Public Creditor(a) ..	158,350	169,891	182,834	192,735	211,921
<i>Total(a)</i>	175,977	188,746	201,224	211,105	231,412
Maturing Overseas(a)(b)	4,499	4,431	4,349	4,267	4,184
SEMI-GOVERNMENTAL AND OTHER PUBLIC AUTHORITIES.					
<i>New Money Loan Raisings—</i>					
From Government	51,234	53,482	51,644	56,948	54,242
From Public	64,555	58,674	62,777	73,924	73,689
<i>Total</i>	115,789	112,156	114,421	130,872	127,931
<i>Funds provided for Redemption—</i>					
Government Loans	3,328	6,866	3,978	6,829	8,244
Loans due to Public	5,984	7,552	10,496	15,041	12,934
<i>Total</i>	9,312	14,418	14,474	21,870	21,178
Accumulated Sinking Fund Balance	22,306	25,311	29,702	35,500	41,882
<i>Debt—</i>					
Due to Government	401,080	446,112	492,929	542,817	592,408
Due to Banks (net Overdraft) ..	2,195	9,994	6,402	5,900	6,410
Due to Public Creditor(a) ..	503,515	560,074	623,744	695,574	762,163
<i>Total(a)</i>	906,790	1,016,180	1,123,075	1,244,291	1,360,951
Maturing Overseas(a)(b)	13,616	13,556	12,112	9,337	9,330

(a) Includes debt in London and New York. The former is expressed in United Kingdom currency, the latter is payable in dollars which have been converted at the rate of 4.8665 dollars to £1. (b) Included in debt figures above.

§ 4. Roads and Bridges.

1. **Commonwealth Government Grants.**—The following table shows the allocation to the States under the several Commonwealth Aid Roads Acts, for road construction, maintenance, repair and other works connected with transport for each of the years 1955–56 to 1959–60, and to the Commonwealth for expenditure on the construction and maintenance of strategic roads and for the promotion of road safety practices for each of the years 1954–55 to 1958–59. After 1st July, 1959, when the Commonwealth Aid Roads Act 1959 came into operation, the Commonwealth made separate provision for expenditure on strategic roads and the promotion of road safety practices. See also Chapter XXI.—Public Finance, and *Finance* bulletins.

**ROAD CONSTRUCTION, MAINTENANCE, ETC.: GRANTS UNDER THE
COMMONWEALTH AID ROAD ACTS.**
(£'000.)

Year ended 30th June—	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	C'wealth. (a)	Total.
1956 ..	7,282	4,660	5,097	2,976	5,178	1,326	950	27,469
1957 ..	8,587	5,495	6,009	3,509	6,105	1,563	950	32,218
1958 ..	9,495	6,264	6,585	3,879	6,658	1,733	1,000	35,614
1959 ..	9,930	6,543	6,890	4,056	6,967	1,813	1,000	37,199
1960 ..	12,172	8,660	8,021	4,922	7,964	2,184	..	43,923

(a) In the years prior to 1959–60, allocations under the Commonwealth Aid Roads Act 1954–56 for expenditure on the construction and maintenance of strategic roads and the promotion of road safety practices.

2. **New South Wales.**—(i) *General.* A central road authority, known as the Main Roads Board, was created by legislation in 1925 for the purpose of providing improved and uniform standards of construction, reconstruction and maintenance of the principal roads of the State and to administer government subsidies for works on those roads. In 1932, the Main Roads administration was reorganized as a separate department under the control of a Commissioner. The activities of the Department of Main Roads embrace works on main and developmental roads throughout the State, all roads in the unincorporated portion of the Western Division, and certain associated works, principally bridges and vehicular ferries, constructed from government funds. The Department of Main Roads co-operates with the municipal and shire councils in the work of constructing and maintaining the main roads system.

Public roads, except those within the City of Sydney, may be proclaimed as main roads on the recommendation of the Commissioner for Main Roads, who takes into consideration the representations made by the councils concerned, availability of funds for construction and maintenance purposes, and the value of the roads as connecting links between centres of population or business. The classes of main roads are (i) the State highways which form the principal avenues of road communication throughout the State and connect with similar avenues in other States; (ii) trunk roads, which, with the State highways, form the framework of a general system of intercommunication throughout the State; (iii) ordinary main roads, which provide a network of roads connecting towns and important centres of population with the State highways and trunk roads and with each other. In addition to the main roads, there are also (i) secondary roads (in the County of Cumberland), which carry a substantial volume of through traffic and thereby relieve neighbouring main roads of traffic and (ii) developmental roads, which help to develop country districts.

In the County of Cumberland, which for the purposes of the Main Roads Act is deemed to include the City of Blue Mountains and small sections of other councils' areas on the boundary of the County of Cumberland, the full cost of road and bridge construction is paid from the funds of the Department of Main Roads. The Councils contribute towards the cost at the rate of ¼d. in the £ on the unimproved value of ratable property. The rate payable in respect of lands used principally for primary production is one-half the rate levied on other lands. In country districts, the Department meets the full cost of road and bridge works on State highways, the full cost of bridge works and three-quarters of the cost of road works on trunk roads, and three-quarters of the cost of bridge works and two-thirds of the cost of road works on ordinary main roads. The cost of constructing developmental roads and works is borne in full by the Department of Main Roads, but local Councils are required to maintain them in a satisfactory condition. The Department of Main Roads meets half the cost of works on secondary roads.

(ii) *Length of Roads.* (a) *Proclaimed Roads.* The total length of proclaimed roads in New South Wales at 30th June, 1960, was 25,362 miles classified as:—State highways, 6,503 miles; trunk roads, 4,181 miles; ordinary main roads, 11,727 miles; secondary roads,

87 miles; and developmental roads, 2,864 miles. The length of proclaimed main roads was altered slightly because of the proclamation and re-routing of short lengths of road. The proclamation on approximately 4 miles of main roads was revoked during 1959–60.

During 1959–60, 120 miles of new development roads were proclaimed and 147 miles were removed from the list of proclaimed developmental roads.

The length of main and secondary roads maintained by the Department of Main Roads at 30th June, 1960, was 4,900 miles (22 per cent.), while the length maintained by councils was 17,598 miles (78 per cent.). The proportions of main roads maintained by the Department and councils respectively were:—State highways, 59 per cent., 41 per cent; trunk and ordinary main roads, 7 per cent., 93 per cent. Secondary roads were maintained wholly by councils. In the County of Cumberland (the metropolis and adjoining areas), the Department maintained 56 per cent. of the roads (524 miles).

(b) *Composition of Roads.* In 1957, the total length of all roads in New South Wales was estimated at 127,097 miles. The lengths of roads, according to their composition or nature, were as follows:—sealed, 15,740 miles; macadam, 42,522 miles; formed only, 27,604 miles; cleared only, 41,231 miles.

(iii) *Main Roads Department.* (a) *General.* Progress has continued with the implementation of the Department's plan for main roads development in the County of Cumberland. Most of the Department's proposals have been incorporated in the County of Cumberland Planning Scheme approved by Parliament under the Local Government (Amendment) Act 1951.

The Department's proposals for the development of the main roads system in Newcastle and the surrounding districts have been largely incorporated in the Northumberland County District Planning Scheme, and some sections of the system have been constructed.

With some modifications, the Department's proposals for the planning of the main roads in the Wollongong-Port Kembla district have been incorporated in the planning scheme prepared by the Illawarra Planning Authority.

During 1959–60, 47 new bridges were constructed. Major bridge works under construction include steel and/or concrete bridges over the Cook's River at Tempe on the Princes' Highway (length 300 feet); over the Murray River at Albury on the Hume Highway (length 300 feet); over the Hastings River near Blackman's Point on the Pacific Highway (length 1,500 feet); over Iron Bark Creek at Hexham (320 feet); over the Richmond River at Lismore (688 feet); over the Parramatta River at Gladesville (2,000 feet); over the Parramatta River at Silverwater (620 feet); over the Lane Cove River at Fig Tree (749 feet); over the Goulburn River at Sandy Hollow (length 576 feet); and over the Mann River at Jackadgery (length 939 feet).

(b) *Revenue and Expenditure.* The funds of the Department of Main Roads are derived principally from (1) motor vehicle taxation; (2) charges on heavy commercial goods vehicles under the Road Maintenance (Contribution) Act 1958; (3) grants under Commonwealth Aid Roads Acts (see para. 1 above and Chapter XXI.—Public Finance); (4) other grants from the State or Commonwealth Governments and (5) proceeds of a levy on municipal and shire councils in the County of Cumberland in accordance with the Main Roads Act 1924–58. The State Government also makes repayable advances for Main Roads Department works.

Revenue and expenditure for the five years 1955–56 to 1959–60 are shown below.

DEPARTMENT OF MAIN ROADS, NEW SOUTH WALES:
REVENUE AND EXPENDITURE.
(£.)

Item.	1955–56.	1956–57.	1957–58.	1958–59.	1959–60.
REVENUE.(a)					
Motor Vehicle Taxation, Registration and Licence Fees	7,675,281	7,944,583	8,444,589	10,727,126	11,850,477
Commonwealth Aid Roads Act ..	4,646,788	5,165,020	6,468,726	6,926,549	7,719,608
State and Commonwealth Grants ..	..	..	453,750	357,500	638,750
Contributions by Other Departments and Bodies	413,120	275,453	305,153	240,412	360,978
Councils' Contributions	878,621	971,198	1,119,731	1,384,927	1,649,122
Other	—293	27,618	45,296	46,204	83,179
Total	13,613,517	14,383,872	16,837,245	19,682,718	22,302,114

NOTE.—See next page for footnotes.

DEPARTMENT OF MAIN ROADS, NEW SOUTH WALES: REVENUE AND EXPENDITURE—continued.

(£.)

Item.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
EXPENDITURE.(b)					
Roads and Bridges—					
Construction	7,157,110	7,813,332	9,371,017	10,444,734	13,808,696
Maintenance	5,946,283	6,174,524	6,096,227	5,908,649	6,352,014
Administration	515,715	562,056	614,098	705,745	824,203
Interest, Exchange, etc., on Debt ..	151,652	171,242	184,067	190,789	202,439
Other(c)	166,854	127,790	295,895	276,270	426,421
Total	13,937,614	14,848,944	16,561,304	17,526,187	21,613,773

(a) Excludes repayable advances by the State Government (£150,000 in 1955-56, £448,073 in 1956-57, £150,000 in 1957-58 and £800,000 in 1959-60) and transfer from Sydney Harbour Bridge Reserve Account for Expressway construction (£100,000 in 1958-59 and £362,000 in 1959-60). Expenditure from these amounts is fully reflected in Expenditure. (b) Excludes debt redemption (£36,299 in 1955-56, £38,677 in 1956-57, £39,966 in 1957-58, £340,790 in 1958-59 and £45,981 in 1959-60). (c) Mainly purchase of assets not subject to annual depreciation charge. The purchase of other assets is omitted here because the depreciation charge for them is reflected each year in "Roads and Bridges".

The figures shown above represent the aggregate revenue and expenditure of five funds—the County of Cumberland Main Roads General and Special Purposes Funds, the Country Main Roads General and Special Purposes Funds, and the Developmental Roads Fund.

(c) *Sydney Harbour Bridge.* The Sydney Harbour Bridge was opened for traffic on 19th March, 1932. The main span is 1,650 feet and the clearance for shipping 170 feet from high water level. The deck, 160 feet wide, carries a roadway of eight traffic lanes and two railway tracks, and there is also a footway on each side. The capital cost of the bridge to 30th June, 1960, was £9,578,006, but this amount will be reduced slightly on completion of the disposal of the remaining surplus resumed property. The portion met from repayable loan funds, over £7,900,000, is repayable from toll income. The accumulated surpluses of the Bridge Account have been used to make transfers to a Reserve Account (£2,405,000) and in 1958-59 and 1959-60 to convert tram tracks to roadway (£762,131) and construct expressways (£12,000). The Account showed a deficiency of £44,968 at 30th June, 1960. In 1959-60, income amounted to £1,266,000, including road tolls, £1,079,311, railway passenger tolls, £146,335 and omnibus passenger tolls, £17,911. Expenditure amounted to £871,000, including interest, exchange, flotation expenses, etc., £313,550, sinking fund, £112,920, maintenance £183,719, and major improvements £64,291. Expenditure from accumulated surpluses on major improvements amounted to £486,029 in 1959-60, including £350,000 from the Harbour Bridge Reserve Account. During 1959-60, 25,493,000 rail travellers, 14,164,000 omnibus travellers, and 44,431,000 road travellers in 27,614,000 road vehicles crossed the bridge, contributing, respectively, 12 per cent., 1 per cent. and 87 per cent. of the total toll revenue.

3. *Victoria.*—(i) *General.* With the object of improving the main roads of the State, the Country Roads Board was established by legislation passed in 1912. The principal duties of the Board are to determine the main roads, State highways, tourists' roads, etc., to inquire into the State's resources in road materials and the most effective methods of road construction and maintenance, and to recommend deviations in existing roads or the construction of new roads in order to facilitate communication or to improve the conditions of traffic.

Following the preparation by the Melbourne and Metropolitan Board of Works of a Planning Scheme for the metropolitan area of Melbourne, and the appreciation of the general principle that where practicable, it is desirable for the responsibility for the implementation of planning scheme proposals to be with the Planning Authority, the Melbourne and Metropolitan Board of Works Act was amended in June, 1956, making the Melbourne and Metropolitan Board of Works responsible for the construction and maintenance of such metropolitan highways and bridges as are declared for this purpose.

(ii) *Length of Roads.* (a) *Declared Roads.* The total length of declared roads in Victoria at 30th June, 1960, was 14,391 miles, classified as follows:—State highways, 3,845 miles; main roads, 9,751 miles; tourist roads, 417 miles; forest roads, 378 miles. The length of the surface treated (black) or higher type of pavements included in the foregoing mileage was 10,319 miles or 72 per cent. of the total.

(b) *Composition of Roads.* It is estimated that, in addition to the 14,391 miles of classified roads as above, there were approximately 86,000 miles of unclassified roads at 30th June, 1960. The latest detailed estimate of the length of roads and streets in Victoria (as at 30th September, 1959) provides the following information:—sealed, 17,970 miles; macadam, 32,738 miles; formed only, 23,403 miles; cleared only, 26,490 miles; total, 100,601 miles.

(iii) *Country Roads Board.* (a) *General.* During 1959–60, 1,741 miles of declared roads under the Board's control were treated with bitumen. In addition, 801 miles of undeclared roads, for which the Board contributed funds, were similarly treated. The total length of bitumen treatment carried out in 1959–60 was 2,629 miles (including 87 miles for other authorities). Of the work on the roads under the Board's control in 1959–60, 592 miles related to State highways.

During 1959–60, 208 bridge projects with the total value of £1,630,000 were initiated. Of these, 154, costing £732,000, were under municipal supervision.

(b) *Receipts and Payments.* The funds of the Country Roads Board are derived principally from motor registration fees, two thirds of all money received by way of owners' certificates, one half of drivers' licence fees, fines, payments by the Commonwealth Government under the Commonwealth Aid Roads Acts, road charges under the Commercial Goods Vehicles Act and repayments by municipalities. In addition, loans have been authorized from time to time under the Country Roads Acts for permanent works on main and developmental roads, State highways, tourists' and forest roads, while the State Government has provided, free of repayment, loan moneys for restoration of flood and bush fire damage. During the year ended 30th June, 1960, loan receipts and payments each amounted to £160,000, and expenditure included £5,124 for restoration of flood and bush fire damage. The total loan expenditure to 30th June, 1960, was £14,386,217. This figure does not include loan expenditure from the Developmental Roads Loan Account, a fund which was created for the purpose of constructing and maintaining subsidiary or developmental roads. Loan money raised on this account was exhausted at 30th June, 1937, the total expenditure at that date being £6,425,758.

Total receipts and payments during each of the years 1955–56 to 1959–60 are shown below:—

COUNTRY ROADS BOARD, VICTORIA: RECEIPTS AND PAYMENTS.

(£.)

Item.	1955–56.	1956–57.	1957–58.	1958–59.	1959–60.
RECEIPTS.					
Motor Vehicle Registration Fees (a)	4,984,855	6,211,564	8,013,268	8,340,079	8,941,256
Drivers' Licence Fees(a)	199,852	207,892	219,342	(c) 284,994	(c) 452,324
Municipalities' Payments	501,110	530,418	560,092	685,773	723,803
Commonwealth Aid Roads Acts(b) ..	4,430,575	5,247,438	6,158,907	6,870,975	8,460,574
Loans from State Government	1,092,950	404,679	402,822	75,834	160,000
Advance from Public Account	500,000	..	..	..	..
Commonwealth-State Contribution for restoration of flood damage ..	..	236,641	460,452	53,171	5,124
Road Charges—Commercial Goods Vehicles Act	215,789	1,314,784	1,529,236	1,873,424	2,117,494
Other	24,809	28,173	37,114	30,263	43,994
Total	11,949,940	14,181,589	17,381,233	18,214,513	20,904,569

NOTE.—See next page for footnotes.

COUNTRY ROADS BOARD, VICTORIA: RECEIPTS AND PAYMENTS—*continued.*
(£.)

Item.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
PAYMENTS.					
Construction and Maintenance of Roads and Bridges—					
State Highways	3,495,182	4,079,366	4,988,708	5,357,732	5,852,042
Main Roads	3,889,291	3,921,041	5,428,679	5,536,431	6,259,203
By-pass Roads .. .. .	..	..	..	28,579	266,880
Tourist Roads	342,839	285,127	457,735	453,877	551,088
Forest Roads	144,684	116,388	127,775	190,652	192,060
Unclassified Roads	1,947,134	2,508,782	3,615,378	3,371,433	3,974,049
Other	50,484	72,895	107,469	82,899	124,589
Plant, Stores and Materials	627,011	620,626	1,053,254	712,974	1,028,042
Interest, Debt Redemption, etc.	745,873	792,321	831,077	862,583	875,034
Repayment of Advance .. .. .	..	500,000	..	..	..
Office Building, Kew—Capital Cost .. .. .	..	..	..	..	452,275
Statutory Payment to Tourists' Resorts Fund	72,109	76,284	108,780	144,770	151,737
Administration and Other	717,265	882,435	860,760	1,004,542	1,221,756
Total	12,031,872	13,855,265	17,579,615	17,746,472	20,948,755

(a) After costs of collection. Since 1950, one half of the drivers' licence fees has been credited to the funds of the Country Roads Board while the remaining half has been credited to the Municipalities Assistance Fund. (b) Excludes portion of Commonwealth Aid Roads Acts advances drawn by the Public Works Department for expenditure on wharfs, jetties, etc. (c) Includes fees for licences issued for periods of two and three years.

(iv) *Melbourne and Metropolitan Board of Works.* Since assuming responsibility for carrying-out planning scheme proposals relating to metropolitan highways and bridges, a tentative £20,000,000 construction programme of urgent highway works throughout the metropolitan area of Melbourne has been adopted and is being progressively implemented by the Board of Works. Expenditure on these projects up to 30th June, 1960, was £536,614.

(v) *Level Crossings.* In 1954-55, the Level Crossings Fund was created under the Country Roads and Level Crossings Funds' Act 1954 to finance (a) the elimination of level crossings or the provision of alternative routes to enable road traffic to avoid level crossings, (b) the provision of lights, signs, and lighting at, and the improvement of approaches to, level crossings and (c) generally, the reduction of danger at level crossings. The Act provides for the payment into the Fund of one third of all moneys received by way of additional motor registration fees (owner's certificates) and money provided under any other Act. The amount available for expenditure in 1959-60 was £652,338, comprising receipts from owners' certificates, £302,226, and the balance brought forward from 1958-59, £350,112. Expenditure from the Fund amounted to £345,233, of which £316,733 was incurred by the Railways Department and the balance by the Country Roads Board.

4. *Queensland.*—(i) *General.* Under the Main Roads Act 1920, a Main Roads Board was constituted, consisting of three members appointed by the Governor-in-Council. In 1925, the Board was abolished and its powers conferred upon a single Commissioner. The Main Roads Commission was constituted a Department under the name of the Department of Main Roads in February, 1951, with the Commissioner of Main Roads as its permanent head. The duties of the Commissioner are to carry out surveys and investigations necessary to determine State highways, main, developmental, secondary, mining access, farmers' and tourist roads and tourist tracks, and the responsibility for building and maintaining these declared roads is largely that of the Commissioner. Roads of purely local importance are constructed and maintained by local authorities. In many cases, construction is financed by the State Government by means of Treasury loans. Other roads may be built by the Public Estate Improvement Branch of the Lands Department in order to open up areas of previously inaccessible or undeveloped country.

(ii) *Length of Roads.* (a) *Declared Roads.* The total length of declared roads in Queensland at 30th June, 1959, was 20,781 miles, comprising State highways, 8,252 miles; main roads, 10,434 miles; developmental roads, 235 miles; and secondary roads, 1,860

miles. By the amendments to the Main Roads Acts published in the Government Gazette of 6th April, 1959, mining access, farmers' and tourist roads become secondary roads, and the provisions relating to the declaration of tourist tracks were repealed.

(b) *Composition of Roads.* The total length of roads and streets in Queensland at 30th June, 1960, was:—sealed, 9,341 miles; macadam, 19,388 miles; formed only, 38,587 miles; cleared only, 51,245 miles; total, 118,561 miles.

(iii) *Department of Main Roads. (a) General.* During 1958–59, the Department completed 1,088 miles of roads, including new construction and stage construction. Bridges of all types to a length of 5,664 linear feet were constructed, bringing the total constructed by the Department at 30th June, 1959, to 202,396 feet. In addition, at 30th June, 1959, 6,090 feet were under construction.

(b) *Receipts and Payments.* The funds of the Department of Main Roads are obtained chiefly from motor vehicle registration and collections, fees, etc. under the Transport Acts, contributions under the Commonwealth Aid Roads Acts, and loans, grants and advances from the State Government. The total receipts and payments, including amounts for defence works, during each of the years 1954–55 to 1958–59 are shown below:—

DEPARTMENT OF MAIN ROADS, QUEENSLAND: RECEIPTS AND PAYMENTS.
(£.)

Item.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
RECEIPTS.					
Motor Vehicle Registration, Transport Acts Collections, Fees, etc. . .	4,075,193	4,342,483	4,608,807	4,797,882	5,036,414
Loans from State Government ..	..	380,000	..	125,000	621,865
Grants, Advances, Refunds, etc. from State Government ..	..	..	..	47,414	241,861
Commonwealth Aid Roads and Works Acts ..	4,414,226	5,135,202	6,012,899	7,020,237	7,353,215
Maintenance Repayments—Local Authorities ..	368,711	406,998	590,885	611,124	648,882
Hire, Rent, Sales of Plant, etc. ..	615,080	765,687	882,316	945,525	1,126,739
Other ..	329,549	415,931	405,555	479,362	548,287
Total ..	9,802,759	11,446,301	12,500,462	14,026,544	15,577,263
PAYMENTS.					
Permanent Road Works and Surveys	6,091,811	6,344,024	7,953,553	8,027,715	8,680,460
Maintenance of Roads ..	2,077,429	2,521,193	2,372,221	2,556,029	2,790,004
Plant, Machinery, Buildings, etc. (including Plant Maintenance) ..	1,390,728	1,070,648	1,287,443	1,239,085	1,000,793
Loans—Interest ..	265,079	253,050	242,592	208,498	198,098
Redemption ..	250,817	255,224	256,048	256,287	330,561
Administration and Other ..	805,296	907,224	1,022,760	1,061,891	1,157,569
Total ..	10,881,160	11,351,363	13,134,617	13,349,505	14,157,485

5. *South Australia.*—(i) *General.* The Highways and Local Government Department is administered by the Commissioner of Highways, who is empowered, subject to the approval of the Minister of Roads, to undertake the construction, maintenance and protection of the principal roads of the State. In addition, the Commissioner—

- (a) allocates grants to councils for roadworks and supervises the expenditure,
- (b) assists Councils to purchase road-making plant and to defray the cost of roadworks,
- (c) advises Councils on any question concerning the construction, maintenance or repair of roads.

(ii) *Source of Funds.* Funds of the Department are derived mainly from—

(a) *State Government*—the Highways Fund, into which are paid the proceeds from motor vehicle registration and drivers' licences (less cost of collection), appropriations from loan funds, repayments of advances made to Councils and contributions by the Municipal Tramways Trust,

(b) *Commonwealth Government*—contributions under the Commonwealth Aid Roads Acts.

(iii) *Length of Roads.* In South Australia, there are only two classifications of roads. These are main roads proclaimed under the provisions of the Highways Act and all other roads, commonly designated district roads. At 30th June, 1960, there were 8,188 miles of proclaimed main roads and 54,257 miles of district roads, totalling 62,445 miles. The composition was as follows:—Sealed, 5,136 miles; macadam, 12,999 miles; formed only, 15,405 miles; cleared only, 28,905 miles.

(iv) *State Highways and Local Government Department, Receipts and Payments.* The following table shows particulars of receipts and payments, during the years 1955–56 to 1959–60, of funds controlled by the Highways and Local Government Department.

HIGHWAYS AND LOCAL GOVERNMENT DEPARTMENT, SOUTH AUSTRALIA: RECEIPTS AND PAYMENTS.

(£.)

Item.	1955–56.	1956–57.	1957–58.	1958–59.	1959–60.
RECEIPTS.					
Motor Vehicle Registration, Licences, Fees, Fines, etc.	3,221,230	3,404,557	3,470,923	3,750,160	3,942,087
Commonwealth Aid Roads and Works Acts	2,958,943	3,481,627	3,944,987	4,395,218	4,977,052
Loans from State Government	100,000	10,000	15,000	..	85,000
Other	399,192	416,427	432,302	408,854	391,554
Total	6,679,365	7,312,611	7,863,212	8,554,232	9,395,693
PAYMENTS.					
Construction and Reconstruction of Roads and Bridges	3,658,078	3,569,676	3,738,544	5,096,450	6,100,249
Maintenance	1,562,515	1,856,560	2,123,008	2,174,320	2,096,301
Recoups to Consolidated Revenue Fund—Interest, Debt Redemption and Exchange	182,910	189,150	202,646	205,361	213,631
Grants and Advances to Local and Semi-Governmental Authorities	470,243	263,705	293,349	464,723	401,424
Administration	403,014	457,583	524,374	(a)	(a)
Stores, Plant, Machinery, Suspense Accounts, etc.	474,996	1,011,212	778,875	514,886	439,732
Total	6,751,756	7,347,886	7,660,796	8,455,740	9,251,337

(a) Administrative Expenses, amounting to £596,876 in 1958–59 and £735,738 in 1959–60, have been charged to "Construction and Reconstruction of Roads and Bridges" and to "Maintenance".

The total expenditure, both revenue and loan, by State and local governments on roads, streets and bridges in South Australia during the years 1955–56 to 1958–59 was, respectively, £7,539,000, £8,812,000, £9,228,000, £9,889,000 and £11,723,000.

6. Western Australia.—(i) *General.* In 1926, the central road authority known as the Main Roads Board was established by legislation for the purpose of improving and maintaining the principal roads in the State. In 1930, following administrative reorganization, the Main Roads Board was replaced by a separate Department under the control of a Commissioner. The functions of the Commissioner are to determine and declare main roads, controlled access roads, and developmental roads throughout the State, and carry out such other functions as are provided for in the Main Roads Act 1930–59.

(ii) *Length and Composition of Roads.* The total length of roads for which financial provision was made by the Main Roads Department at 30th June, 1960, was:—Declared main roads, 3,466 miles; controlled access roads, 5 miles; important secondary roads, 7,440 miles; and developmental roads, 21,157 miles. Controlled access roads are roads which do not permit direct access from abutting property but which may be entered and departed from only at certain selected road connexions located at points which are considered to serve best the traffic for which the controlled access roads were designed. Important secondary roads are roads formerly included as developmental, which, however, by virtue of their consistent use by through traffic, warrant a special provision of funds for their upkeep by the Main Roads Department. The classification of "important secondary roads" has no legal significance, as the care and control of these roads remains the responsibility of the Local Authorities.

The total length of roads and streets in Western Australia at the 30th June, 1960, was made up as follows:—sealed, 8,419 miles; macadam, 19,226 miles; formed only, 39,898 miles; cleared only, 23,724 miles; total, 91,267 miles.

(iii) *Main Roads Department.* (a) *General.* During the year 1959–60, the activities of the Department included—clearing, 2,234 miles; forming, 2,897 miles; gravelling, 1,486 miles; reconditioning, 5,312 miles; and stabilizing, 571 miles. In addition, 1,511 miles were primed and sealed (including widening) and 29 bridges constructed. The Narrows Bridge and approaches and Kwinana Freeway were completed at a cost approximating £3,500,000.

(b) *Receipts and Payments.* The funds of the Main Roads Department are derived principally from allocations made under the Commonwealth Aid Roads Act 1959. Other sources of income include one-half of the net amount of traffic fees collected in the Metropolitan Area and an allocation of Transport Board funds. (Outside the Metropolitan Area, motor vehicle licence fees are collected and retained by the Local Authorities.) Receipts and payments for the years 1955–56 to 1959–60 are shown below:—

MAIN ROADS DEPARTMENT, WESTERN AUSTRALIA: RECEIPTS AND PAYMENTS.

(£.)

Item.	1955–56.	1956–57.	1957–58.	1958–59.	1959–60.
RECEIPTS.					
Motor Vehicle Registration, Licences, Fees, etc.	178,083	278,646	489,443	488,386	539,459
Central Trust Fund(a) .. .. .	.. .. .	.. .. .	.. .. .	.. .. .	(b) 351,604
Commonwealth Aid Roads Acts	5,120,269	6,031,988	6,741,558	7,555,565	7,687,130
Commonwealth Aid Roads Acts—Matching Grants .. .. .	.. .. .	.. .. .	.. .. .	.. .. .	(c) 351,591
Recoups from Other Authorities	233,285	154,661	165,987	152,754	183,106
Other	185,802	103,522	14,355	5,254	4,777
Total	5,717,439	6,568,817	7,411,343	8,201,959	9,117,667
PAYMENTS.					
Construction and Reconstruction of Roads and Bridges(d)	3,674,709	5,021,270	5,341,743	5,763,882	6,434,690
Maintenance of Roads and Bridges(d)	463,478	582,816	528,300	570,054	910,846
Grants to Local Authorities, etc.	819,359	916,283	936,622	1,078,395	1,182,255
Transfer to State Consolidated Revenue	70,000	70,000	70,000	70,000	70,000
Plant, Machinery, etc.	381,537	580,880	456,041	222,864	160,749
Other(d)	321,013	207,991	242,489	288,608	221,817
Total	5,730,096	6,379,240	7,575,195	7,993,803	8,980,357

(a) Motor Vehicle Registration, Licences, Fees, etc., in excess of base year, 1958–59. (b) Includes £230,742 to be distributed to Metropolitan and Country Local Authorities early in 1960–61. (c) Includes £173,057 to be distributed to Metropolitan and Country Local Authorities early in 1960–61. (d) Includes administration and expenditure on hire and maintenance of road construction plant, etc., and on purchase of materials.

NOTE.—Figures for each year to 1958–59, have been revised to show Receipts and Payments of the Main Roads Department only instead of the combined transactions of several trust accounts as in previous issues of this Year Book.

7. *Tasmania.*—(i) *General.* Under the Road Construction (Transfer of Functions) Act 1951, which came into operation on 1st July, 1951, the control of the construction and maintenance of roads and certain road making plant was vested in the Minister for Lands and Works. Works authorized by the Minister in respect of roads classified as State highways, tourist, and developmental roads are constructed by the Department of Public Works and financed from the State Highways Trust Fund, into which are paid the proceeds from Commonwealth Aid Roads grants, motor vehicle registration fees and taxes, licence fees for drivers and public transport, and other moneys made available by Parliament. In addition, provision was made under the Road Construction (Transfer of Functions) Act for certain works authorized by the Transport Commission to be carried out and constructed by the Department. The expenditure by the Public Works Department during 1958–59 on the construction of roads, tracks and bridges amounted to £4,050,000, of which £3,031,000 was charged to road funds, £47,000 to revenue, £724,000 to loan and £248,000 to other funds. Except in special cases, municipal councils bear the cost of maintaining country roads and a proportion of the cost of main and secondary roads.

(ii) *Length of Roads.* (a) *Classified Roads.* The mileages of classified roads in Tasmania at 30th June, 1960, were as follows:—State highways, 1,155 miles; main roads, 687 miles; secondary roads, 176 miles; tourist roads, 46 miles; developmental roads, 16 miles; other roads, 135 miles; total, 2,215 miles. Country roads totalled nearly 10,000 miles. The mileages of sealed roads, and their proportions to the respective totals, were:—State highways, 638 miles (55 per cent.); main roads, 335 miles (49 per cent.); secondary and other roads, 43 miles (11 per cent.); total, 1,016 miles (46 per cent. of all classified roads, and 8 per cent. of all roads in Tasmania).

(b) *Composition of Roads.* The length of all roads in Tasmania, including those with surfaces of lower grade, at 30th June, 1960, was as follows:—sealed, 1,713 miles; macadam, 8,302 miles; formed only and cleared only, 1,551 miles; total 11,566 miles.

(iii) *Receipts and Payments—Combined Road Funds.* The table below shows particulars of the receipts and payments of the combined Road Funds for the years 1955–56 to 1959–60:—

ROAD FUNDS, TASMANIA: RECEIPTS AND PAYMENTS.

(£.)

Item.	1955–56.	1956–57.	1957–58.	1958–59.	1959–60.
RECEIPTS.					
Motor Vehicle Taxation and Registration, Licences, Fees, Fines, etc.	623,782	840,724	1,023,055	1,049,463	1,112,674
Commonwealth Aid Roads and Works Acts	1,303,299	1,535,719	1,745,888	1,948,491	2,183,461
Recoups from Local Authorities, etc.	10,765	10,469	9,192	9,641	9,384
State Loan Fund	782,264	679,099	600,083	705,630	1,168,558
Hire of Plant	813,593	912,089	1,076,810	1,181,032	1,273,535
Other	171,205	31,046	52,310	89,219	107,803
Total	3,704,908	4,009,146	4,507,338	4,983,476	5,855,415
PAYMENTS.					
Construction and Reconstruction of Roads and Bridges	1,624,722	1,945,053	1,763,457	2,571,412	3,052,787
Maintenance	1,079,893	1,150,714	1,204,243	1,190,902	1,325,329
Other works connected with Transport	11,558	7,105	2,935	14,659	18,028
Grants to Local Authorities, etc. ..	5,401	7,346	12,755	9,657	9,195
Purchase, Hire and Maintenance of Plant	839,360	1,068,202	1,080,554	1,232,912	1,388,877
Other	110,748	93,717	92,885	61,427	313,189
Total	3,671,682	4,272,137	4,156,829	5,080,969	6,107,405

8. *Summary of Roads used for General Traffic.*—(i) *Proclaimed or Declared Roads.* The table hereunder is a summary of the roads proclaimed or declared under the Acts of the several States relative to the operations of the central road authorities, and shows the

lengths of various classes proclaimed or declared as at 30th June, 1960. The central road authority in each State assumes responsibility under the Act for the whole, or a proportion, of the cost of construction and/or maintenance of these roads, the extent varying from State to State and with the class and locality of the roads. Before proclamation of a main road, consideration is given, in general, to the following points:—availability of funds; whether the road is, or will be, within one of several classes of main trunk routes; whether the district is, or will be, sufficiently served by railways. Provision is also made in some States for the declaration of roads other than main roads. The absence of a particular class in any State does not necessarily imply that there are no roads within that State that might be so classified; the classes are restricted only to roads proclaimed or declared under the Acts. A further point to make is that, through various causes, e.g., insufficiency of funds, man-power or materials, etc., construction or maintenance may not keep pace with gazettals of mileages, and, therefore, the condition of a road may not match its status.

PROCLAIMED OR DECLARED ROADS: LENGTHS, 30th JUNE, 1960.
(Miles.)

Class of Road.	N.S.W.	Vic.	Q'land. (a)	S. Aust.	W. Aust. (a)	Tas.	Total.				
State highways	6,503	3,845	8,252	} 8,188	3,466 {	1,155 } 687	} 68,189				
Trunk roads	4,181	} 9,751	10,434								
Ordinary main roads	11,727										
Total Main Roads	22,411	13,596	18,686	8,188	3,466	1,842	68,189				
Secondary roads	(b) 87	..	(c) 1,860	..	(d) 7,440	176	9,563				
Developmental roads	2,864	..	235	..	21,157	16	24,272				
Tourist roads .. ..	..	417	..	..	..	46	463
Other roads .. ..	..	(e) 378	..	..	5 (f)	135	518	
Total Other Roads	2,951	795	2,095	..	28,602	373	34,816				
Grand Total	25,362	14,391	20,781	8,188	32,068	2,215	103,005				

(a) As at 30th June, 1959.

roads and tourist tracks.

the control of Local Authorities.

(b) Metropolitan only.

(d) Though financed by the Main Roads Department, these roads are under

(e) Forest roads.

(c) Includes mining access roads, farmers'

(f) Subsidized roads.

(ii) *Composition of Roads.* The following table represents an attempt to classify all the roads used for general traffic in Australia, at the latest dates available, according to States and Territories and to certain broad composition groups. The figures in the table for the States are obtained from the State Government Statisticians, and are derived mainly from local government sources.

For details of any particular State, see the respective paragraphs in the preceding pages.

ALL ROADS USED FOR GENERAL TRAFFIC: LENGTHS.
(Miles.)

Composition of Roads.	N.S.W. 30th June, 1957.	Vic. 30th Sept., 1959.	Q'land. 30th June, 1960.	S. Aust. 30th June, 1960.	W. Aust. 30th June, 1960.	Tas. 30th June, 1960.	N. Terr. 30th June, 1960.	A.C.T. 30th June, 1960.	Total.
Sealed(a) ..	15,740	17,970	9,341	5,136	8,419	1,713	1,371	307	59,997
Macadam(b) ..	42,522	32,738	19,388	12,999	19,226	8,302	222	84	135,481
Formed only ..	27,604	23,403	38,587	15,405	39,898	} 1,551	{ 1,016	178	} 329,627
Cleared only ..	41,231	26,490	51,245	28,905	23,724				
Total ..	127,097	100,601	118,561	62,445	91,267	11,566	12,997	571	525,105

(a) Includes wood, stone, concrete and bitumen. limestone and gravel; metalled and gravelled.

(b) Includes water-bound macadam, granite,

9. **Aggregate Net Expenditure on Roads and Bridges in Australia.**—In most States there are three classes of authorities concerned with roads and bridges, the State Government, the central road authority and numerous local government bodies. The Commonwealth Government, in addition to the grants it makes to the States for road purposes, is also concerned with roads in the Northern Territory, Australian Capital Territory and roads of access to Commonwealth property in the various States. Some information relating to Commonwealth grants to the States for road purposes and particulars of the expenditure on roads and bridges by local government bodies and the central road authorities are given in preceding sections of this chapter.

Most of these authorities may expend money directly on road construction or indirectly by means of grants and payments to other authorities. These indirect payments, which, if included, would duplicate expenditure, together with the fact that some authorities are unable to supply separate information concerning their road expenditure, make it difficult to compile precise statistics of aggregate expenditure on roads and bridges.

The information in the following table, which is partly estimated and which excludes the main indirect payments, provides an approximate measure of the aggregate net expenditure by all public authorities on roads and bridges in Australia during each of the years ended 30th June, 1956 to 1960. The figures cover expenditure from revenue and loan funds on the construction, reconstruction and maintenance of roads and bridges and direct administration but not debt charges. Because of the difficulties associated with the indirect payments mentioned above, it is not possible to give separate net details for each authority. The figures in the following table differ from those published in the table in this paragraph in previous issues of the Year Book, mainly because the latter represented the aggregate expenditure of the central road authorities only.

PUBLIC AUTHORITY NET EXPENDITURE ON ROADS AND BRIDGES.
(£ million.)

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Northern Territory and A.C.T.	Aust.
1956 ..	32	19	14	9	7	4	1	86
1957 ..	36	22	16	10	8	4	1	97
1958 ..	39	28	18	10	9	4	1	109
1959 ..	42	29	17	11	9	5	2	115
1960 ..	46	34	22	12	11	6	2	113

§ 5. Water Supply, Sewerage and Drainage.

NOTE.—See also Chapter VIII.—Water Conservation and Irrigation.

1. **New South Wales.**—(i) *General.* The two largest domestic water supply and sewerage systems are controlled by statutory boards each consisting of a president and a vice-president appointed by the State Government and five members elected by local councils. These are (a) the Metropolitan Water, Sewerage and Drainage Board, which administers the systems in the County of Cumberland, i.e., in Sydney and in the surrounding districts, and, in addition, has jurisdiction over territory extending along the South Coast beyond Wollongong to Lake Illawarra, and (b) the Hunter District Water Board, serving the Newcastle area. At Broken Hill, a similar board includes a representative of the mining companies. Other systems, apart from irrigation projects and water storage systems administered by the State Government, are controlled by county, municipal or shire councils.

(ii) *Water Supply—to 30th June, 1960.* (a) *Metropolitan.* The storage reservoirs of the metropolitan system, with a combined available capacity of 402,503 million gallons, drain catchment areas of 3,788 square miles (Warragamba, 3,412 square miles, Upper Nepean, 347 square miles, and Woronora, 29 square miles). The development of a water supply system on the Warragamba River was completed with the official opening of the Warragamba Dam in October, 1960. This dam, constructed in concrete, has a storage capacity of 452,500 million gallons. Its safe net draught is estimated to be 285 million gallons a day. A hydro-electric power station at the dam generates 50,000 kWh a day. At 30th June, 1960, there were 127 service reservoirs in use with a combined capacity of 580 million gallons. Rating for water for 1959–60 was 10d. in the £1 of assessed annual value and the charge for water measured by meters 2s. 3d. per 1,000 gallons.

(b) *Newcastle.* The water supply is drawn from two sources (1) the Chichester Reservoir, with a storage capacity of about 5,000 million gallons and draining a catchment of 76 square miles, and (2) the Tomago Sandbeds, which extend northerly along the coast towards Port Stephens. Service reservoirs and tanks distributed throughout the Water Supply District have a total storage capacity of 113 million gallons. Water rating for 1959-60 was 1s. 5½d. in the £1 on assessed annual value for occupied properties and 1s. 2½d. in the £1 for unoccupied properties. The price of water to domestic and industrial consumers is 2s. 6d. per 1,000 gallons.

(c) *Water Supplied, etc.* The following tables show, for the Sydney and Newcastle systems, the number of properties, the estimated population supplied, and other details for the years 1955-56 to 1959-60:—

WATER SUPPLY, SYDNEY(a): SERVICES.

Year.	Improved Properties for which Water Mains available.	Estimated Population Supplied.	Average Daily Consumption.	Total Consumption for the Year.	Average Daily Consumption.		Length of Mains.	Number of Meters.
					Per Property.	Per Head of Estimated Population.		
			Mill. gals.	Mill. gals.	Gallons.	Gallons.	Miles.	
1955-56 ..	531,977	2,053,000	174.3	63,791	332	85.6	5,788	308,511
1956-57 ..	545,992	2,096,000	196.0	71,530	364	94.1	5,904	326,173
1957-58 ..	561,934	2,148,000	183.6	67,016	331	86.1	6,055	340,364
1958-59 ..	579,900	2,212,000	198.9	72,624	348	91.3	6,246	362,130
1959-60 ..	598,893	2,264,000	200.9	73,529	335	88.7	6,450	(b)

(a) Includes part of South Coast.

(b) Not available.

WATER SUPPLY, NEWCASTLE: SERVICES.

Year.	Properties Supplied.	Estimated Population Supplied.	Average Daily Consumption.	Total Consumption for Year.	Average Daily Consumption.		Length of Mains.
					Per Property.	Per Head of Estimated Population.	
			Mill. gals.	Mill. gals.	Gallons.	Gallons.	Miles.
1955-56 ..	76,272	305,088	27.2	9,945	356	89.1	1,354
1956-57 ..	77,380	309,520	29.5	10,768	381	95.3	1,369
1957-58 ..	78,954	315,816	29.5	10,753	373	93.3	1,410
1958-59 ..	81,398	325,592	28.2	10,281	346	86.5	1,439
1959-60 ..	84,497	337,988	28.6	10,474	339	84.7	1,460

(iii) *Sewerage and Drainage—to 30th June, 1960.* (a) *Metropolitan.* Sydney and suburbs are served by three major sewerage systems and six minor systems, consisting of six outfalls discharging directly into the Pacific Ocean, and three treatment works. In addition, four centres outside the metropolitan area (Camden, Campbelltown, Liverpool and Wollongong) are served by local treatment works.

Stormwater drainage channels under the control of the Metropolitan Water, Sewerage and Drainage Board at 30th June, 1960, were 180 miles long. Sewerage rating for 1959-60 was 9d. in the £1 of assessed annual value, and drainage rating 1½d. in the £1.

(b) *Newcastle.* The main sewerage system of the Newcastle area discharges into the Pacific Ocean at Merewether Gulf. In some of the outlying districts, treatment works have been installed.

Sewerage rates for 1959-60 were 1s. 0½d. in the £1 of assessed annual value of occupied lands and 9½d. in the £1 for unoccupied lands, and drainage rates (on certain areas served) 1½d. in the £1.

(c) *Particulars of Services.* The following table gives, for the Metropolitan system, details of sewerage services and stormwater drains as at 30th June, 1956 to 1960.

SEWERAGE AND DRAINAGE, METROPOLITAN(a): SERVICES.

At 30th June—				Improved Properties for which Sewerage Available.	Estimated Population Served.	Lengths of Sewers.	Length of Stormwater Channels.
						Miles.	Miles.
1956..	..	..	..	344,655	1,425,000	3,349	175
1957..	..	..	..	353,800	1,457,000	3,462	175
1958..	..	..	..	364,712	1,483,000	3,628	180
1959..	..	..	..	379,069	1,520,000	3,791	180
1960..	..	..	..	395,869	1,560,000	4,021	180

(a) Includes part of South Coast.

At 30th June, 1960, 55,644 premises had been connected to the Hunter District Water Board's sewerage system (Newcastle area). The total length of sewers under the Board's control was 774 miles, and the length of drains was 49 miles.

(iv) *Finances, Sydney and Newcastle Systems.* The following table shows the debt, revenue and expenditure of the Metropolitan Water, Sewerage and Drainage Board and the Hunter District Water Board for each of the services of water supply, sewerage and drainage during 1959–60, and for the three services combined during the years 1955–56 to 1959–60.

WATER SUPPLY, SEWERAGE AND DRAINAGE, METROPOLITAN AND NEWCASTLE: FINANCES.

(£.)

Year.	Capital Debt at 30th June.	Revenue.	Expenditure.				Surplus(+) or Deficit(–).
			Working Expenses. (a)	Interest and Exchange.	Debt Redemption.	Total.	

METROPOLITAN.(b)

1959–60—							
Water ..	99,905,606	9,931,358	4,255,575	4,097,252	1,577,231	9,930,058	+ 1,300
Sewerage..	39,730,050	5,390,455	3,220,904	1,572,440	596,543	5,389,887	+ 567
Drainage..	1,357,208	340,318	263,103	52,046	20,512	335,661	+ 4,658
Total 1959–60	140,992,864	15,662,131	7,739,582	5,721,738	2,194,286	15,655,606	+ 6,525
1958–59	127,090,931	14,243,408	7,219,250	5,107,248	1,904,612	14,231,110	+ 12,298
1957–58	116,624,719	13,071,578	6,841,455	4,534,653	1,680,320	13,056,428	+ 15,150
1956–57	105,627,704	11,299,363	5,853,765	3,899,087	1,540,412	11,293,264	+ 6,099
1955–56	98,801,814	9,349,410	4,851,588	3,446,598	1,044,103	9,342,289	+ 7,121

NEWCASTLE.

1959–60—							
Water ..	17,296,538	1,602,538	768,529	560,899	271,157	1,600,585	+ 1,953
Sewerage..	5,108,665	635,285	394,977	168,504	68,667	632,148	+ 3,137
Drainage..	233,295	49,970	33,867	9,033	3,304	46,204	+ 3,766
Total 1959–60	22,638,498	2,287,793	1,197,373	738,436	343,128	2,278,937	+ 8,856
1958–59	20,053,737	2,133,500	1,179,652	671,151	246,480	2,097,283	+ 36,217
1957–58	16,999,335	1,961,696	1,138,593	599,457	217,907	1,955,957	+ 5,739
1956–57	14,602,234	1,709,861	989,870	521,212	194,718	1,705,800	+ 4,061
1955–56	13,175,757	1,534,591	981,473	435,203	82,767	1,499,443	+ 35,148

(a) Includes provision for renewals, long service leave, loss on exchange, etc. (b) Includes part of South Coast. (c) Excludes non-interest bearing capital in respect of stormwater drains transferred from Public Works Department—£2,219,823 at 30th June, 1960.

(v) *Country Water Supply and Sewerage Systems.* (a) *Local Government.* At 31st December, 1958, country water supply services were conducted or under construction by 55 municipalities, 76 shires and 5 county councils, and country sewerage services by 53 municipalities and 27 shires. The capital indebtedness of these schemes was £25,164,523 at 31st December, 1958, namely, £17,048,957 for water and £8,115,566 for sewerage. Debt of the municipalities amounted to £14,475,001, shires to £6,577,189 and county councils to £4,112,333. Government advances amounting to £495,595 are included in these figures. Aggregate income and expenditure amounted to £4,151,171 and £3,314,533, respectively, in 1958.

(b) *Other.* The water supply and sewerage services for Broken Hill are operated by a statutory board, the Broken Hill Water Board. Its capital indebtedness at 31st December, 1959 was £3,233,382. In 1959, income (excluding subsidies, State Government £100,753 and Mining Companies £298,505) amounted to £240,035 and expenditure (excluding debt redemption £201,249) amounted to £436,154.

The following country water supply systems—South-West Tablelands, Junee and Fish River—are administered by the Department of Public Works. These supply water in bulk to municipalities and shires, the Railways Department, and other large consumers. Only a small quantity is sold direct to private consumers. The capital indebtedness of these systems was £5,765,310 at 31st December, 1959.

The Mulwala Water Supply and Sewerage Service was constructed as an urgent war-time work for the Commonwealth, and the Bethunga Water Supply System is administered by the Department of Public Works in conjunction with the Junee supply.

2. *Victoria.*—(i) *Melbourne and Metropolitan Board of Works.* (a) *General.* The Board was established by Act of Parliament on 20th December, 1890. Since June, 1959, the Board has consisted of a Chairman and 51 Commissioners elected to represent the municipalities which lie wholly or partly within the metropolitan area. The Chairman is elected by the Commissioners for a four-year term. The principal functions of the Board until 1954 were to control and manage the metropolitan water supply system; to provide the metropolitan area with an efficient main and general sewerage system; to deal with main drains and main drainage works; and to control and manage the rivers, creeks and watercourses within the metropolitan area. The Board has carried out since December, 1954, the additional functions of a permanent planning authority, and in June, 1956, it became the authority directly responsible for certain metropolitan main highways, bridges, parks and foreshores.

(b) *Water Supply.* There are six storage reservoirs serving the metropolitan area—Yan Yean, 7,233 million gallons (available for consumption, 6,649 million gallons); Toorourong, 60 million gallons; Maroondah, 6,289 million gallons (4,870 million gallons); O'Shannassy, 931 million gallons; Silvan, 8,853 million gallons (8,823 million gallons); and Upper Yarra, 45,400 million gallons (44,120 million gallons); total 68,766 million gallons (65,453 million gallons). Service reservoirs number 27, with a total capacity of 327 million gallons.

The water rate levied by the Board in 1959–60 was 8d. in the £1 on the net annual value of the properties served. The charge for water consumed in excess of the quantity which, at 1s. 6d. per 1,000 gallons, would equal the assessed water rates on each property, was 1s. 6d. per 1,000 gallons. The following table shows particulars of Melbourne metropolitan water supply services for the years 1955–56 to 1959–60.

WATER SUPPLY, MELBOURNE: SERVICES.

Year.	Number of Houses Supplied.	Estimated Population Supplied.	Average Daily Consumption.	Total Consumption for the Year.	Average Daily Consumption.		Length of Aqueducts, etc., Mains and Reticulation.	Number of Meters.
					Per House.	Per Head of Estimated Population.		
			Mill. gals.	Mill. gals.	Gallons.	Gallons.	Miles.	
1955-56 ..	424,500	1,528,000	113.0	41,377	266	74.0	4,381	289,567
1956-57 ..	440,159	1,585,000	119.6	43,652	271	75.4	4,478	299,676
1957-58 ..	454,853	1,637,000	128.8	47,006	283	78.7	4,721	317,670
1958-59 ..	483,410	1,740,000	134.0	48,917	277	77.0	4,942	344,702
1959-60 ..	496,841	1,789,000	145.3	53,169	292	81.2	5,110	366,905

(c) *Sewerage and Drainage.* Particulars of sewerage and drainage services for 1955-56 to 1959-60 are shown below. The rate levied in 1959-60 in respect of sewerage was 1s. 2d. in the £1 on the net annual value of the property served. The drainage rate was 2d. in the £1.

SEWERAGE AND DRAINAGE, MELBOURNE: SERVICES.

Year.	Number of Houses for which Sewers are Provided.	Estimated Population for which Sewers are Provided.	Average Daily Pumping.	Total Sewage Pumped for the Year.	Average Daily Pumping.		Length of Sewers, etc.	Length of Main Drains.
					Per House.	Per Head of Estimated Population.		
			Mill. gals.	Mill. gals.	Gallons.	Gallons.	Miles.	Miles.
1955-56 ..	358,805	1,292,000	76.8	28,118	214.1	59.4	3,125	151
1956-57 ..	366,507	1,319,000	74.5	27,181	203.2	56.5	3,180	161
1957-58 ..	373,019	1,343,000	75.0	27,379	201.1	55.8	3,256	169
1958-59 ..	378,738	1,363,000	78.7	28,716	207.8	57.7	3,350	176
1959-60 ..	384,844	1,385,000	83.2	30,459	216.2	60.1	3,458	181

The metropolitan sewerage system consists of the Main system (serving an area of 76,854 acres) and three subsidiary systems—the Sunshine system (serving an area of 1,760 acres), the Kew system (serving an area of 103 acres) and the South-eastern system (serving an area of 2,701 acres in Cheltenham, Parkdale, Mentone and Mordialloc). The Metropolitan Sewage Farm, 26,854 acres in extent and situated about 24 miles south-west of Melbourne beyond the township of Werribee, serves to purify and dispose of approximately 95 per cent. of the sewage flow of the metropolis before its discharge into Port Philip Bay. The total capital cost (less depreciation) of the Farm to 30th June, 1960, was £3,835,542. Revenue during 1959-60 amounted to £273,962, cost of sewage disposal to £262,268, trading expenses to £129,774, interest to £185,972, and net cost of sewerage purification to £304,052. These financial particulars are included in the sewerage items of the summary below.

(d) *Finances.* The following table provides for the year 1959-60 a summary of the financial operations of the water supply, sewerage and drainage services conducted by the Melbourne and Metropolitan Board of Works.

MELBOURNE AND METROPOLITAN BOARD OF WORKS: FINANCES, 1959-60.
(£.)

Service, etc.	Capital Cost of Works and Buildings at 30th June.(a)	Revenue.	Expenditure.				Surplus (+) or Deficit(—).
			Working Expenses.	Interest and Exchange.	Debt Redemption.	Total.	
Water ..	48,732,894	3,756,648	1,443,897	2,302,596	..	3,746,493	+ 10,155
Sewerage..	35,828,903	4,089,080	1,470,658	1,610,105	..	3,080,763	+ 1,008,317
Drainage..	8,455,638	618,115	407,663	308,552	..	716,215	— 98,100
General(b)	4,082,887	..	522,919	..	526,802	1,049,721	— 1,049,721
Total ..	98,098,322	8,463,843	3,845,137	4,221,253	526,802	8,593,192	— 129,349

(a) Total loan indebtedness—1959-60, £85,489,746.

(b) Statutory and general expenditure not distributed over Services.

The following table shows the financial operations of the water supply, sewerage and drainage services of the Melbourne and Metropolitan Board of Works for the years 1955-56 to 1959-60:—

MELBOURNE AND METROPOLITAN BOARD OF WORKS: FINANCES.
(£.)

Year.	Capital Cost of Works and Buildings at 30th June.	Revenue.	Expenditure.				Surplus (+) or Deficit(—).
			Working Expenses.	Interest and Exchange.	Debt Redemption.	Total.	
1955-56 ..	64,557,489	5,603,803	2,899,891	2,566,587	132,466	5,598,944	+ 4,859
1956-57 ..	72,071,790	6,241,514	3,224,087	2,851,191	149,139	6,224,417	+ 17,097
1957-58 ..	79,439,722	6,962,750	3,485,745	3,287,070	170,507	6,943,322	+ 19,428
1958-59 ..	88,466,516	7,564,879	3,471,915	3,681,159	402,969	7,556,043	+ 8,836
1959-60 ..	98,098,322	8,463,843	3,845,137	4,221,253	526,802	8,593,192	— 129,349

(ii) *State Rivers and Water Supply Commission.* (a) *General.* Water supply and conservation throughout Victoria (except for the area controlled by the Melbourne and Metropolitan Board of Works) is the responsibility of the State Rivers and Water Supply Commission. The events leading to the establishment of the Commission and its works in the spheres of irrigation, domestic and stock water supply to farms, drainage, flood protection and river improvement, have already been described in Chapter VIII.; this section is therefore confined to the Commission's functions in connexion with urban water supply and sewerage.

(b) *Water Supply.* At 30th June, 1960, the Commission provided a reticulated water supply from its own works to 131 cities and towns having a combined population of 200,000 persons.

The principal systems operated by the Commission serve part of the Mornington Peninsula—Dandenong area (about 85,000 people supplied); Bendigo, Castlemaine, etc. (58,000) and about 8,000 people in the Western District. In addition, 10,000 persons in a number of towns in the Bellarine Peninsula receive supply through a Commission-operated distributary system from headworks controlled by the Geelong Waterworks and Sewerage Trust.

Outside these areas, the Commission supplies mainly small towns in the north of the State, in areas where it also supplies farms with water for irrigation or domestic and stock purposes.

Capital expenditure at 30th June, 1960, net of redemption payments, was divided up as follows between the several systems:—Mornington Peninsula, £7,075,000; Bendigo, Castlemaine, £3,700,000; Bellarine Peninsula, £725,000; Otway System (Western District), £650,000; Other, £950,000; Total, £13,100,000.

In addition to the towns supplied by the Commission, there are more than 500,000 people in 205 cities and towns throughout the State who get a reticulated water supply from works operated by local authorities.

All these authorities operate under the supervision of the State Rivers and Water Supply Commission, largely because the Government subsidizes their capital expenditure. Most new works are financed from Government loan funds, but in recent years some local authorities have been able to borrow money privately. In most cases, the local authority controls both headworks and distribution system, but a few large towns—serving about 50,000 people—draw their water from the State Rivers and Water Supply Commission and are concerned only with reticulation of the water. Together, therefore, the Commission and local authorities supply 336 urban centres containing about 750,000 people. Very few towns of any importance are now without a reticulated water supply.

The following table presents the financial position in respect of town water supply at 30th June, 1960.

TOWN WATER SUPPLY, VICTORIA: CAPITAL LIABILITY, 30TH JUNE, 1960.
(£'000.)

Particulars.	Water supply provided by—		
	Local Authorities.	State Rivers and Water Supply Commission.	Total.
Government advances	15,100	13,750	28,850
Private loans	1,025	..	1,025
Total Expenditure	16,125	13,750	29,875
Redemption and repayments	1,350	650	2,000
Loan Expenditure Outstanding	14,775	13,100	27,875
Borne by State	3,800	6,375	10,175
Borne locally	10,975	6,725	17,700

The proportion of loan capital borne by the State is much higher in the case of Commission undertakings than for towns supplied by local authorities. This is because most Commission undertakings have been developmental in nature. Besides interest on capital borne by it, the State pays the difference between 3 per cent. and the actual rate paid on practically all of the capital carried locally. The total annual subsidy on country town water supply is currently about £700,000.

(c) *Sewerage.* The State Rivers and Water Supply Commission directly controls the sewerage system of the town of Eildon. With that exception, the construction and management of sewerage works in Victoria's country cities and towns are the responsibility of local authorities supervised by the Commission. Except for the Geelong Waterworks and Sewerage Trust and the Latrobe Valley Water and Sewerage Board which have special Acts dealing with their activities, all sewerage authorities operate under the Sewerage Districts Act.

At 30th June, 1959, there were 36 cities and towns with sewerage systems in operation. These contained about 325,000 persons, approximately a third of the total number of residents outside the metropolitan area.

Expenditure on sewerage in Victorian country towns at 30th June, 1960, was a little over £13,000,000 of which approximately £10,000,000 had been advanced by private lenders. The annual State subsidy on country sewerage in Victoria is currently about £175,000, mainly provided in the form of subsidies on interest rates paid, along the same lines as for town water supply. Comparatively little capital is borne directly by the State.

(iii) *Geelong Waterworks and Sewerage Trust.* (a) *General.* The Geelong Waterworks and Sewerage Trust was constituted in 1908 and reconstituted under the Geelong Waterworks and Sewerage Act in 1910. It was further reconstituted in September, 1950, to include a Government nominee (Chairman) and provision was made for a commissioner to be elected by the ratepayers of the Shire of Corio, making a total of seven commissioners instead

of five as formerly. The amount of loan money which may be raised is limited to £6,500,000 for water supply undertakings, and £5,000,000 for sewerage undertakings. The population supplied is estimated by the Trust at 96,684 persons. This and other general information relates to 30th June, 1959.

(b) *Water Supply.* The catchment area is about 35,000 acres. There are seven storage reservoirs and eleven service basins whose total storage capacity is 8,640 million gallons. The length of water mains and reticulation is 486 miles. The total expenditure on water supply to 30th June, 1959, was £3,510,006. Expenditure for 1958–59 comprised £126,970 for working expenses and £199,676 for interest, redemption and reserves, while revenue amounted to £324,564. The sinking fund appropriations at June, 1959, amounted to £216,313. The replacement and contingencies reserve amounted to £291,802. There is a water rate of 1s. 6d. in the £1 (with minima of 10s. for vacant land and £1 for tenements) on the net annual value of ratable properties.

(c) *Sewerage Works.* The sewerage scheme consists of a main outfall sewer to the ocean at Black Rock, about 9 miles from Geelong, and 205 miles of main and reticulation sewers. The sewerage area is 10,559 acres, and the number of buildings connected within the sewered areas is 19,108. The total expenditure on sewerage works to 30th June, 1959, was £1,505,950. The revenue in 1958–59 amounted to £172,312 and the expenditure comprised £66,961 on working expenses and £103,380 on interest, redemption and reserves. Sinking fund appropriations at June, 1959, were £156,017. Replacement and contingencies reserve amounted to £293,235. A general rate of 1s. 4d. in the £1 is levied on the net annual value of ratable properties.

(iv) *The Ballarat Water Commission and the Ballarat Sewerage Authority.* (a) *General.* The Ballarat Water Commission was constituted on 1st July, 1880, and the Ballarat Sewerage Authority on 30th November, 1920. The members of the Water Commission constitute the Sewerage Authority. The Commissioners number nine, three (one of whom is chairman) being appointed by the Government, four being elected by the Council of the City of Ballarat, one being elected by the Councils of the Borough of Sebastopol and the Shires of Buninyong and Grenville and one being elected by the Councils of the Shires of Bungaree and Ballarat. General and financial information given herein relates to the year ended 31st December, 1960.

(b) *Water Supply.* The Water Supply District embraces an area of about 65 square miles, containing a population of about 55,000. The total storage capacity of the seven reservoirs is 5,435 million gallons and the catchment area is 23,872 acres.

The capital cost of construction of the waterworks was £2,457,052 to 31st December, 1960. The liabilities amounted to £1,497,109 at 31st December, 1960, including loans due to the Government totalling £1,361,568. The revenue for the year 1960 was £176,074. Working expenses during 1960 amounted to £102,773 and interest and other charges to £73,203. A rate of 1s. 1d. in the £1 is levied on the net annual value of all ratable properties, with minima of £1 10s. per annum for land on which there is a building and £1 per annum for land on which there is no building.

(c) *Sewerage.* The Ballarat sewerage district embraces the City of Ballarat and parts of the Shires of Ballarat, Bungaree and Grenville and the Borough of Sebastopol. Work was commenced in 1922 and up to 31st December, 1958, the Authority had constructed a disposals works, a nightsoil depot, an ejector station and more than 132 miles of sewers. The capital cost of sewerage construction works to 31st December, 1960, was £1,304,477. The method of sewage disposal is by sedimentation, oxidation and sludge digestion. One hundred and ninety-seven sewered areas had been declared as at 31st December, 1960. Assessments in the sewerage district numbered 17,767, while those in sewered areas numbered 13,880. There were 12,058 buildings connected.

The scheme is financed by debenture-issue loans from various financial institutions. The liabilities on account of loans secured for construction at 31st December, 1960, amounted to £1,039,927; redemption payments at that date totalled £301,647. An expenditure of £157,122 was incurred for house connexions, the whole of which has been redeemed. Revenue during 1960 amounted to £120,451 and expenditure, which included £61,589 on interest and redemption, was £116,606.

A sewerage rate of 1s. 4d. in the £1 is levied, with a minimum charge of £3 on the net annual value of any ratable sewered property on which there is a building and £1 on any ratable sewered property on which there is no building.

(v) *Latrobe Valley Water and Sewerage Board.* (a) *General.* The Latrobe Valley Water and Sewerage Board was constituted on 1st July, 1954. The Board consists of seven members, namely:—two Government nominees (one of whom is Manager and also Board

Chairman), three members elected by water supply, sewerage and river improvement authorities within the Latrobe Valley, and one representative each of the State Electricity Commission of Victoria and the Gas and Fuel Corporation of Victoria.

(b) *Water Supply.* The Board is empowered to construct water supply works within the Latrobe Valley but at present its main construction activities are confined to the central and industrialized areas, particularly around the towns of Morwell and Traralgon. At 30th June, 1960, a pumped water supply scheme from the Tyers River had been constructed and work was proceeding on a reservoir with a capacity of 7,000 million gallons on the Upper Tyers River. The capital cost of construction of the water works was £2,032,164 to 30th June, 1960. Liabilities amounted to £2,317,556 including loans due to the Government totalling £2,278,338. Revenue for the year was £140,787. Working expenses during 1959-60 amounted to £37,536 and interest and other charges to £66,920. The Board does not strike a rate but supplies consumers, including local water supply authorities, by measure. The quantity supplied during the year ended 30th June, 1960, was 2,020 million gallons.

(c) *Sewerage.* The sewerage system consists of a main outfall sewer, about 50 miles in length, to the Dutson Downs Disposal Farm. Wastes conveyed consist mainly of industrial wastes, such as paper wastes and gasification wastes, together with small quantities of domestic sewage. The capital cost of the sewerage construction works to 30th June, 1960, was £2,133,899. Liabilities amounted to £2,404,051 including loans due to the Government totalling £2,292,180. Revenue in 1959-60 was £157,012, and expenditure comprised £34,676 working expenses and £64,363 interest and other charges. No sewerage rate is levied but a charge is made by measure for wastes both from industries and public authorities. The quantities of effluent admitted to the outfall system during 1959-60 averaged 4.84 million gallons a day.

(vi) *Other Sewerage Authorities.* At 30th June, 1960, 64 other sewerage authorities had been constituted under the provisions of the Sewerage Districts Acts and systems were in operation in 36 districts.

3. Queensland.—(i) *Brisbane City Council—to 30th June, 1960.* (a) *General.* This organization conducts the water supply and sewerage systems of the City of Brisbane. Prior to 1928, water and sewerage activities had been controlled by the Metropolitan Water and Sewerage Board, but were then absorbed by the Brisbane City Council, which also supplies, in bulk, the whole of the water used by the City of Ipswich and the Town of Redcliffe.

(b) *Water Supply.* Water storage facilities comprise the following (available capacities are shown in parentheses):—Somerset Reservoir, 200,000 million gallons (55,000 million gallons); Lake Manchester, 5,806 million gallons (5,720 million gallons); Brisbane River, 543 million gallons (484 million gallons); Pure Water Reservoir, Holt's Hill, 8.3 million gallons (8.3 million gallons); Enoggera Reservoir, 1,000 million gallons (600 million gallons); Gold Creek Reservoir, 407 million gallons (400 million gallons). There are 16 service reservoirs with a capacity of approximately 41 million gallons. The Somerset reservoir is under the control of Stanley River Works Board and is a dual purpose project with a designed total holding capacity of 200,000 million gallons, 55,000 million gallons to be for water storage and 145,000 million gallons for flood mitigation. Water rating at 30th June, 1960, was 4d. in the £1 of unimproved capital value for improved properties, and 3d. in the £1 for vacant lands, with a minimum charge of £6 10s. and £6 respectively. The following table is a summary of operations of the complete Brisbane City Council system (metropolitan area, Ipswich and Redcliffe) for the years 1955-56 to 1959-60:—

WATER SUPPLY, BRISBANE(a): SERVICES.

Year.	Services Connected.	Estimated Population Supplied.	Average Daily Consumption.	Total Consumption for the Year.	Average Daily Consumption.		Length of Trunk and Reticulation Mains.	Number of Meters.
					Per Service.	Per Head of Estimated Population.		
			Mill. gals.	Mill. gals.	Gallons.	Gallons.	Miles.	
1955-56 ..	148,632	543,000	36.4	13,283	245	67.0	1,929	49,588
1956-57 ..	153,035	560,000	41.1	15,012	269	73.5	1,959	(b)
1957-58 ..	157,750	575,212	41.0	14,970	260	71.3	1,995	(b)
1958-59 ..	163,336	594,124	41.4	15,127	254	69.7	2,059	(b)
1959-60 ..	168,687	615,293	44.3	16,214	272	73.1	2,137	(b)

(a) Includes Ipswich and Redcliffe.

(b) Not available.

(c) *Sewerage.* The sewage treatment works is situated at Luggage Point at the entrance to the Brisbane River. An activated sludge system of treatment was originally planned but since the commencement of pumping operations a sedimentation plant only has been used. Sewerage rating at 30th June, 1960, was 3d. in the £1 of unimproved capital value for improved properties, and 2½d. in the £1 for vacant lands, with a minimum charge of £7 and £6 10s. respectively. The following table is a summary of operations of the Brisbane sewerage scheme for the years 1955–56 to 1959–60:—

SEWERAGE, BRISBANE: SERVICES.

Year.	Premises Connected.	Estimated Population Served.	Total Sewage Pumped for the Year.	Length of Main, Branch, Reticulation etc., Sewers.
			Mill. Galls.	Miles.
1955–56	53,100	196,000	6,222	696
1956–57	54,300	201,000	4,837	712
1957–58	55,846	206,630	5,316	731
1958–59	58,616	216,879	6,043	757
1959–60	58,942	218,185	5,626	77

(d) *Finances.* The following table shows particulars of the finances of the water supply and sewerage undertakings of the Brisbane City Council for the years 1955–56 to 1959–60:—

WATER SUPPLY AND SEWERAGE, BRISBANE: FINANCES.

(£.)

Service and Year.	Gross Capital Cost to 30th June.	Revenue.	Expenditure.			Surplus(+) or Deficit(—).
			Working Expenses.	Interest, Redemption, etc., Charges.	Total. (a)	
Water Supply—						
1955–56 ..	12,618,584	1,479,045	765,970	549,707	1,459,738	+ 19,307
1956–57 ..	13,159,492	1,634,624	810,150	564,708	1,610,117	+ 24,507
1957–58 ..	13,560,777	1,728,751	875,248	569,267	1,577,222	+ 151,529
1958–59 ..	14,688,559	1,786,978	907,186	629,422	1,736,230	+ 50,748
1959–60 ..	(b)	2,149,216	984,213	793,263	2,115,298	+ 33,918
Sewerage—						
1955–56 ..	13,125,463	719,623	217,238	408,917	707,476	+ 12,147
1956–57 ..	13,475,340	757,507	245,035	414,315	744,755	+ 12,752
1957–58 ..	13,874,524	773,337	244,774	421,004	761,118	+ 12,219
1958–59 ..	14,434,390	807,399	267,861	444,562	806,862	+ 537
1959–60 ..	(b)	907,148	(b)	460,896	839,761	+ 67,387

(a) Total including other expenditure.

(b) Not available.

(ii) *Country Towns.* (a) *Water Supply.* In addition to the City of Brisbane, there were, at 30th June, 1959, 144 cities and towns in Queensland provided with water supply systems controlled by municipal and shire councils.

(b) *Sewerage Systems.* At 30th June, 1959, there were 19 cities and towns outside the Metropolitan Area—Barcaldine, Blackall, Bundaberg, Charleville, Cunnamulla, Goondiwindi, Hughenden, Ipswich, Kingaroy, Mackay, Maryborough, Mt. Isa, Quilpie, Rockhampton, Redcliffe, Surat, Toowoomba, Townsville and Warwick—with sewerage systems.

Sewerage schemes were in course of construction at Bowen, Longreach and Roma.

(c) *Finances.* The receipts (other than loan and loan subsidy) of water undertakings controlled by the cities and towns referred to above amounted to £2,027,296 in 1958-59. Expenditure amounted to £2,008,107, including £809,310 for debt charges. In addition, expenditure from loans and loan subsidy amounted to £2,012,584.

Finances of sewerage undertakings are incorporated in council general funds and are not available separately.

4. *South Australia.*—(i) *General.* The water supply and sewerage systems in this State were constructed and are maintained by the Engineering and Water Supply Department under the control of the Minister of Works. The works controlled comprise the Adelaide, Barossa, Baroota Creek, Beetaloo, Bundaleer, Tod River, Warren and other country water districts systems, the Morgan-Whyalla water supply system, the Adelaide metropolitan sewerage system, the Murray River Weirs water conservation, and the Metropolitan Flood Waters Scheme. In 1955-56, construction commenced on the Salisbury-Elizabeth Sewerage Scheme and early in 1959 sewerage of the town of Naracoorte and further extensions to the Port Lincoln sewerage scheme were commenced.

(ii) *South Australian Waterworks.* (a) *Services.* The table below shows particulars of the area, capacity, etc., of combined metropolitan and country waterworks for the years 1955-56 to 1959-60:—

WATERWORKS, SOUTH AUSTRALIA: SERVICES.

Year.	Assessments.(a)		Area of Districts Supplied. (a)	Capacity of Reservoirs, Tanks, etc.	Length of Mains.	Number of Meters.
	Number.	Annual Value.				
		£	Acres.	Mill. gals.	Miles.	
1955-56..	243,809	20,827,954	12,106,795	24,014	7,777	150,317
1956-57..	250,306	22,687,480	12,860,508	24,015	7,916	166,350
1957-58..	262,430	26,810,750	12,983,539	33,949	8,260	180,815
1958-59..	269,825	28,361,294	13,003,305	33,954	8,537	197,914
1959-60..	289,235	31,617,930	13,037,312	33,957	9,016	213,024

(a) Excludes Morgan-Whyalla Water Supply—water sold by measure.

(b) *Finances.* Figures for 1955-56 to 1959-60 are shown in the following table:—

WATERWORKS, SOUTH AUSTRALIA: FINANCES.

(£.)

Year.	Invested Capital to 30th June.	Revenue.	Expenditure.			Deficit.
			Working Expenses. (a)	Interest.	Total.	
1955-56	41,501,133	2,082,694	1,920,666	1,328,068	3,248,734	1,166,040
1956-57	45,239,197	2,318,072	2,295,444	1,485,486	3,780,930	1,462,858
1957-58	49,161,026	3,028,193	2,944,648	1,740,157	4,684,805	1,656,612
1958-59	54,301,234	3,106,348	2,768,406	1,933,850	4,702,256	1,595,908
1959-60	59,754,865	3,386,221	3,391,892	2,205,764	5,597,656	2,211,435

(a) Includes debt redemption.

(iii) *Adelaide Waterworks.* At 30th June, 1960, the Adelaide waterworks supplied a district of 185,834 acres. The capacity of its five reservoirs and storage tanks was 14,469 million gallons and there were 2,293 miles of mains.

The Mannum-Adelaide pipeline conveys water from the River Murray to the River Torrens and the River Onkaparinga, and supplements the Metropolitan and Warren systems, serving country areas en route. Another major project, the construction of a large reservoir on the South Para River, is now completed. This reservoir provides additional storage to serve the lower northern areas of the State and makes some additional provision for the metropolitan area. The capacity of the new reservoir is 11,300 million gallons.

Particulars of finances for the years 1955-56 to 1959-60 are shown below:—

ADELAIDE WATERWORKS: FINANCES.

(£.)

Year.	Invested Capital to 30th June.	Revenue.	Expenditure.			Surplus (+) or Deficit (—).
			Working Expenses. (a)	Interest.	Total.	
1955-56..	20,434,323	1,358,896	930,138	646,720	1,576,858	— 217,962
1956-57..	23,115,689	1,492,610	1,218,285	759,012	1,977,297	— 484,687
1957-58..	25,900,153	2,045,625	1,632,326	895,679	2,528,005	— 482,380
1958-59..	28,719,570	2,101,768	1,450,994	1,019,331	2,470,325	— 368,557
1959-60..	32,104,642	2,311,402	1,941,493	1,114,418	3,055,911	— 744,509

(a) Includes debt redemption.

(iv) *Adelaide Metropolitan Sewerage.* The Adelaide metropolitan sewerage system, comprising the Adelaide, Glenelg and Port Adelaide areas, with drainage areas of 116 square miles in all, includes a sewage farm, and treatment works at Glenelg and Port Adelaide. Financial and other particulars for 1955-56 to 1959-60 are shown hereunder:—

ADELAIDE METROPOLITAN SEWERAGE: SUMMARY.

Year.	Length of Sewers.	Number of Connexions.	Invested Capital to 30th June.	Revenue.	Expenditure.			Surplus(+) or Deficit(—)
					Working Expenses. (a)	Interest.	Total.	
	Miles.		£	£	£	£	£	£
1955-56 ..	1,335	137,995	7,602,416	866,754	577,872	238,748	816,620	+ 50,134
1956-57 ..	1,370	143,743	8,273,936	1,167,508	648,999	263,270	912,269	+ 255,239
1957-58 ..	1,411	149,104	9,213,112	1,393,260	653,810	309,145	962,955	+ 430,305
1958-59 ..	1,444	154,636	10,437,696	1,471,067	685,104	349,312	1,034,416	+ 436,651
1959-60 ..	1,471	160,407	11,305,495	1,576,769	676,660	401,009	1,077,669	+ 499,100

(a) Includes debt redemption.

(v) *Country Sewerage Schemes.* In 1959-60, the total length of the Salisbury sewerage scheme was 75 miles and the number of its connexions 6,707. The Port Lincoln scheme, which is seven miles in length, had 103 connexions in 1959-60. The Naracoorte sewerage scheme was proclaimed in January, 1959, the area being 2.43 square miles, and now has twelve miles of sewer and 116 connexions.

(vi) *Country Water Supply.* Water district systems outside Adelaide at 30th June, 1960, comprised an area of 12,851,478 acres, and the capacity of the reservoirs was 19,443 million gallons. These figures exclude the Morgan-Whyalla supply system, which obtains its water from the River Murray. The storage tanks of this system have a capacity of 44 million gallons.

The Uley-Wanilla sub-artesian basin has been utilized to augment the Tod River District supplies. Pumping began in 1947. In 1959-60, nine bores were in operation and 600 million gallons were pumped from the basin.

The scheme to reticulate water to Yorke Peninsula is nearing completion.

The following table gives financial information on country waterworks for 1955-56 to 1959-60:—

COUNTRY WATERWORKS, SOUTH AUSTRALIA: FINANCES.

(£.)

Year.	Invested Capital to 30th June.	Revenue.	Expenditure.			Deficit.
			Working Expenses. (a)	Interest.	Total.	
1955-56..	21,066,810	723,798	990,528	681,348	1,671,876	948,078
1956-57..	22,123,508	825,462	1,077,159	726,474	1,803,633	978,171
1957-58..	23,260,873	982,568	1,312,322	844,478	2,156,800	1,174,232
1958-59..	25,581,664	1,004,580	1,317,412	914,519	2,231,931	1,227,351
1959-60..	27,650,223	1,074,819	1,450,399	1,091,346	2,541,745	1,466,926

(a) Includes debt redemption.

(vii) *Morgan-Whyalla Water Supply Scheme.* This scheme, which involved the laying of 223 miles of main, was officially opened on 31st March, 1944, the capital invested to 30th June, 1960, being £2,646,826. Particulars of this scheme, where applicable, are included in the tables of the combined waterworks in (ii) above. During 1959-60, the water used from the system between Morgan and Whyalla amounted to 2,918 million gallons. Revenue for the year 1959-60 was £410,071, working expenses, etc., £310,454, interest charges, £131,244, and deficit, £31,627.

5. *Western Australia.*—(i) *General.* The water supply, sewerage and drainage systems of Western Australia are principally under the management of two State Government Departments, namely, the Metropolitan Water Supply, Sewerage and Drainage Department, having as its territory the metropolitan area centred on Perth and extending to Kwinana and Serpentine in the South, Marmion in the north and Greenmount on the east, and the Public Works and Country Water Supply Department, which controls the Comprehensive Water Supply Scheme (covering the Goldfields and Agricultural Areas Water Supply and the Great Southern Towns Water Supply) as well as supplies, from local sources, to 57 country towns not included in the scheme. Both Departments are administered under the portfolio of Minister for Works and Water Supplies. (See also Chapter VIII.—Water Conservation and Irrigation, of this Year Book, pp. 281-2.)

(ii) *Metropolitan Water Supply, Sewerage and Drainage.* (a) *General.* The sources of the metropolitan water supply are the Canning Dam, the Churchman Brook Reservoir, the Victoria Reservoir, the Wungong Brook Diversion Weir, a pipehead dam (capacity 850 million gallons) on the Serpentine River and the partly completed Serpentine Main Dam. The supply from these sources is supplemented as necessary from a number of

artesian bores and from a pipeline link with Mundaring Weir. The largest reservoir, the Canning Dam, has a capacity of 20,550 million gallons. Since the opening of the Serpentine pipehead dam in November, 1957, work has proceeded on the main Serpentine Reservoir designed to have an ultimate capacity of 39,000 million gallons, the estimated cost of the whole project being £9 million.

The sewage treatment works of Perth and suburbs consist of primary sedimentation with separate sludge digestion and discharge of all effluent directly to the ocean. Plant for secondary treatment at Subiaco is now being provided. Fremantle treatment works consist of septic tanks with ocean outfall for effluent. There are three treatment works, situated at West Subiaco, Swanbourne and Fremantle.

(b) *Water Supply.* The following table shows particulars of water supply services for 1955-56 to 1959-60.

METROPOLITAN WATER SUPPLY, WESTERN AUSTRALIA: SERVICES.

Year.	Number of Services.	Estimated Population Supplied.	Average Daily Consumption.	Total Consumption for Year.	Average Daily Consumption.		Length of Mains.	Number of Meters.
					Per Service.	Per Head of Estimated Population.		
			Mill. gals.	Mill. gals.	Gallons.	Gallons.	Miles.	
1955-56 ..	113,437	380,294	39.4	14,408	348	103.5	1,709	82,636
1956-57 ..	118,230	393,596	41.0	14,982	355	106.2	1,792	83,151
1957-58 ..	122,159	407,376	47.5	17,337	394	118.4	1,891	85,896
1958-59 ..	125,761	410,000	49.5	18,061	399	122.5	1,991	92,495
1959-60 ..	129,956	417,260	(a) 33.7	(a) 12,335	(a) 263	(a) 81.5	2,072	97,002

(a) Water restrictions in force for 180 days.

Water rating for 1959-60 was 1s. 6d. in the £1 on annual valuation.

(c) *Sewerage and Main Drainage.* Some particulars of the metropolitan sewerage and main drainage services for 1955-56 to 1959-60 are shown below:—

METROPOLITAN SEWERAGE AND MAIN DRAINAGE, WESTERN AUSTRALIA: SERVICES.

Year.				Houses Connected.	Estimated Population Served.	Length of Sewers.	Length of Main Drains.
						Miles.	Miles.
1955-56 ..	..	..	..	60,702	240,860	692	34
1956-57 ..	..	..	..	62,282	246,900	709	37
1957-58 ..	..	..	..	63,969	253,800	713	66
1958-59 ..	..	..	..	64,944	257,500	714	67
1959-60 ..	..	..	..	65,781	260,600	719	69

Sewerage rating for 1959-60 was 1s. 9d. in the £1 on annual valuation, while metropolitan main drainage rating was 4d.

(d) *Finances.* The following table shows particulars of the finances of the Western Australian Metropolitan Water Supply, Sewerage and Drainage Department for the years 1955-56 to 1959-60.

**METROPOLITAN WATER SUPPLY, SEWERAGE AND MAIN DRAINAGE,
WESTERN AUSTRALIA: FINANCES.**

(£.)

Service and Year.	Capital Cost to 30th June.	Revenue.	Expenditure.			Surplus (+) or Deficit (—).
			Working Expenses.	Interest and Debt Redemption.	Total.	
Water Supply—						
1955-56 ..	12,267,020	1,080,601	560,776	484,164	1,044,940	+ 35,661
1956-57 ..	13,672,321	1,153,737	548,832	598,101	1,146,933	+ 6,804
1957-58 ..	15,283,093	1,260,873	617,754	658,876	1,276,630	— 15,757
1958-59 ..	17,123,762	1,338,917	634,427	744,624	1,379,051	— 40,134
1959-60 ..	18,715,358	1,206,823	671,009	794,160	1,465,169	— 258,346
Sewerage—						
1955-56 ..	5,628,243	608,678	288,679	264,780	553,459	+ 55,219
1956-57 ..	5,834,419	644,568	309,690	300,531	610,221	+ 34,347
1957-58 ..	6,108,598	698,734	333,039	306,545	639,584	+ 59,150
1958-59 ..	6,453,517	735,244	401,175	310,450	711,625	+ 23,619
1959-60 ..	6,915,604	772,012	420,391	319,817	740,208	+ 31,804
Main Drainage—						
1955-56 ..	792,789	66,741	24,835	32,125	56,960	+ 9,781
1956-57 ..	1,009,399	69,255	26,594	39,133	65,727	+ 3,528
1957-58 ..	1,104,103	80,431	29,325	49,467	78,792	+ 1,639
1958-59 ..	1,350,083	88,846	40,684	55,090	95,774	— 6,928
1959-60 ..	1,616,772	93,013	48,867	69,831	118,698	— 25,685

(iii) *Country Water Supplies.* Information concerning country water supplies is included in Chapter VIII.—Water Conservation and Irrigation, of this Year Book (*see p. 282*).

6. *Tasmania.*—(i) *Waterworks.* At the end of 1959-60, there were 95 municipally operated waterworks in Tasmania. The capacity of the reservoirs was 1,750 million gallons, the estimated population served was 250,000 and the number of tenements served was 63,000. In addition, two regional schemes operated by the State Government were serving an estimated population of 35,000 in 9,000 tenements.

(ii) *Sewerage.* At the end of 1959-60, there were 12 municipal sewerage schemes in operation in Tasmania. They served an estimated population of 165,000 and the number of tenements served was 41,600.

§ 6. Harbour Boards and Trusts.

NOTE.—The number and net tonnage of vessels which entered the major ports in each State during the years 1958-59 and 1959-60 are shown in Chapter XIV.—Transport and Communication, (*see p. 527*). Particulars of oversea and interstate cargo discharged and shipped during 1959-60 are shown on page 529 of the same chapter.

1. *New South Wales.*—(i) *Maritime Services Board of New South Wales.* (a) *General.* The Maritime Services Board of New South Wales is a corporate body of five Commissioners comprising three full-time members and two part-time members representing shipping and other interests. The Board was constituted on 1st February, 1936, under the Maritime Services Act 1935, to co-ordinate the port and navigation services of the State, which had previously been administered by the Sydney Harbour Trust and by the State Department of Navigation.

The Board exercises general control over intra-state shipping, including the survey and certification of vessels, the licensing of harbour craft, and the examination and issue of:

certificates to officers. It is responsible for the provision of pilotage services, lights, beacons, buoys and other port facilities, imposes and collects rates and charges on goods and vessels and is vested with the general control and management of the navigable waters and ports within the State.

At the Port of Sydney, the Board is also responsible for the provision of adequate wharfage and channels, and carries out all construction, maintenance and dredging work. At other ports of New South Wales, such work is undertaken by the Department of Public Works.

(b) *Port of Sydney.* The entrance to Sydney Harbour, the principal port of New South Wales, is nearly a mile wide, and the depth of its navigable channel is not less than 80 feet. Between the entrance, known as "The Heads", and the Harbour proper, a distance of four miles, there are two separate channels, each 700 feet wide, the Western Channel not less than 42 feet deep (low water ordinary spring tide) and the Eastern Channel 41 feet deep. The foreshores, which have been reduced by reclamations, are 152 miles in length, and the total area of the port is 13,600 acres, or 21 square miles, of which about one-half has a depth of 30 feet or more at low water ordinary spring tide. The mean range of tides is 3 feet 6 inches.

The wharves are situated in close proximity to the business centre of the city, about four or five miles from the Heads. At present, there are 6 dolphin berths each 550 feet long, and 101 effective commercial cargo berths with a total length of 47,493 feet controlled by the Board. Accommodation for harbour craft amounts to 3,335 feet, while the length of other berths including oil and private wharves totals 28,807 feet. Depth of water at wharves is up to 40 feet. Special facilities for the storage and handling of staple products such as wheat, wool, etc., are provided, and modern plant has been installed for replenishing ships' bunkers with oil or coal.

Docking facilities are available for the largest vessel afloat. The Captain Cook Graving Dock ranks amongst the largest graving docks in the world, being 1,139 feet by 147 feet 7½ inches with a depth of 45 feet 2 inches over the sill at high water. There are also several smaller dry docks and floating docks in the port.

The following table shows particulars of the finances of the Board in respect of the Port of Sydney for 1955-56 to 1959-60:—

MARITIME SERVICES BOARD: FINANCES OF THE PORT OF SYDNEY.

(£.)

Year.	Total Capital Debt at 30th June.	Revenue.			Expenditure.			Surplus(+) or Deficit(—).
		Wharfage and Transhipment Rates.	Tonnage Rates and Berthing Charges.	Total.	Administration and Maintenance.	Interest, Debt Redemption, Exchange, etc.	Total. (a)	
1955-56	13,775,278	1,688,743	459,783	3,042,924	1,740,698	644,783	2,910,481	+ 132,443
1956-57	14,041,252	1,725,590	385,006	2,887,506	1,857,539	722,373	2,869,912	+ 17,594
1957-58	14,546,035	1,822,587	378,284	2,899,795	1,964,830	789,230	2,999,060	— 99,265
1958-59	15,322,219	1,871,384	403,342	2,995,160	1,830,589	843,580	2,924,169	+ 70,991
1959-60	16,400,513	2,138,724	414,071	3,326,944	1,870,595	903,590	3,274,185	+ 52,759

(a) Excludes capital expenditure but includes transfers to the Renewals Fund Reserve Account, 1955-56, £525,000; 1956-57, £290,000; 1957-58, £245,000; 1958-59, £250,000; and 1959-60, £500,000.

(c) *Port of Newcastle.* The Maritime Services Board of New South Wales is the port authority, but other government bodies are responsible for certain functions and activities of a maritime character at Newcastle. These include—

- (i) the Department of Public Works, which is the constructing, dredging and maintenance authority at Newcastle as well as at other New South Wales ports except Sydney;

- (ii) the Department of Railways, which is responsible for the control of wharfrage and shipping arrangements in connexion with the coal industry, and the provision and maintenance of appliances necessary for the transport and shipment of coal.

An Advisory Committee consisting of eight members, appointed by the Governor, assists the Board in matters associated with the operation of the port. It is primarily a coal-loading port, and the proximity to the coal fields has led to the establishment of important industries, including iron and steel works, in the district. Facilities are available for the shipment of wool, wheat and frozen meat, and a wharf is available for timber.

The area used by shipping is about 570 acres, excluding the entrance to the harbour and the inner basin, which together cover an area of 162 acres. The width of the harbour at the entrance is 1,500 feet, and the navigable channel, with a depth of 25 feet 6 inches at low water, is 350 feet wide. Wharfrage accommodation amounts to approximately 12,000 feet, the Maritime Services Board controlling approximately 5,000 feet and the Railways Department approximately 4,000 feet while approximately 3,000 feet is privately owned. There are also several dolphin berths available for tie-up purposes. A floating dock of 15,000 tons capacity is available at the port.

(d) *Port Kembla.* As from 3rd May, 1948, the Maritime Services Board assumed the administration and navigational control of Port Kembla, which had previously been administered by the New South Wales Department of Public Works. The Department, however, continues to be the constructing authority in respect of works, dredging and maintenance. An Advisory Committee consisting of eight members appointed by the Governor has been formed to assist the Board in the operation of the port. It has an area of approximately 330 acres, with depths ranging from 20 to 50 feet (low water ordinary spring tide), and wharfrage accommodation totalling 6,800 feet has been provided for large ocean-going vessels. No cargo sheds are available, as the nature of trade at the port does not call for the provision of sheltered storage accommodation at the berths. It is the port of the southern coalfields and for the expanding industrial area in and about Wollongong. The developmental programme for Port Kembla includes the construction of an inner harbour to provide wharfrage for the steelworks in addition to general cargo berths.

(e) *Botany Bay.* The Maritime Services Board of New South Wales is the administrative and controlling authority. The port is primarily a discharging centre for the oil refinery at Kurnell and two berths are available as well as tanker mooring buoys. The entrance to the Bay is approximately $1\frac{1}{4}$ miles wide, with a minimum depth of about 36 feet in the dredged swinging basin.

(f) *Other Ports.* In addition to the ports of Sydney, Newcastle, Port Kembla and Botany Bay, the Board controls 28 outports along the coastline of 609 miles. The shipping trade of these outports is relatively small.

(ii) *Port Charges.* The port charges payable in respect of shipping and ships' cargoes in New South Wales are imposed by the Commonwealth Government in terms of the Light-houses Act and the Navigation Act, and by the State authorities under the Navigation Act of New South Wales, the Harbour and Tonnage Rates Act, and the Sydney Harbour Trust Act. Since 1st February, 1936, the State enactments have been administered by the Maritime Services Board. The gross collections by the State authorities amounted to £6,281,949 in 1959-60. This figure includes the Port of Sydney revenue (see table on p. 744) and State navigation service collections (£2,955,005 in 1959-60). Commonwealth Government revenue from light dues and navigation receipts, for the whole of Australia, amounted to £612,489 in 1959-60.

2. *Victoria.*—(i) *Melbourne Harbor Trust.* (a) *General.* Information regarding the origin and constitution of this Trust, which controls the Port of Melbourne, appears in Official Year Book No. 12, pages 970-2. The membership of the Board of the Melbourne Harbor Trust Commissioners was increased to five during 1954 by the appointment of a further part-time Commissioner to represent waterside workers' interests. At 31st December, 1959, the sheds available for wharfrage accommodation had a length of 22,600 feet, covering an area of 1,689,516 square feet. The area of water in Port Philip Bay and the River Yarra under the control of the Trust is approximately 5,327 acres, and the total length of wharves, piers and jetties in the port is 63,327 feet, giving an area of over 58 acres of wharfrage,

and 56,148 feet of effective berthing space. During 1959, work was continued on the new berths at Appleton Dock, Victoria Docks, South Wharf, Port Melbourne and Williamstown. A new dock in the river entrance area has been constructed for the use of the ferry service which commenced operating between Melbourne and Devonport, Tasmania, in September, 1959. The depth of water (low water ordinary spring tide) from the main channels to the principal wharves is 31 to 37 feet.

(b) *Finances.* The following table shows particulars of the financial operations of the Trust during the years 1955 to 1959.

MELBOURNE HARBOR TRUST: FINANCES.

(£.)

Year.	Gross Loan Indebtedness at 31st December.	Revenue.		Expenditure.				Surplus (+) or Deficit (-)
		Wharfage and Tonnage Rates.	Total.	Administration and Maintenance.	Interest, Debt Redemption, Exchange, etc.	Depreciation, Renewals and Insurance Account.	Total. (a)	
1955 ..	9,978,842	2,120,780	3,019,048	1,475,467	446,348	532,372	2,906,406	+ 112,642
1956 ..	11,296,811	1,841,176	2,676,698	1,649,047	483,905	145,825	2,662,047	+ 14,651
1957 ..	12,175,428	1,882,501	2,746,513	1,557,933	520,223	250,938	2,718,159	+ 28,354
1958 ..	12,907,279	2,043,848	3,020,913	1,310,119	603,899	631,988	2,958,686	+ 62,227
1959 ..	13,833,011	2,100,924	3,292,329	1,634,513	766,909	376,397	3,201,943	+ 90,386

(a) Includes statutory payments to Consolidated Revenue and Geelong Harbour Trust:—1955, £452,219; 1956, £383,270; 1957, £389,065; 1958, £412,680; 1959, £424,124. Excludes capital expenditure:—1955, £1,509,665; 1956, £1,609,928; 1957, £1,054,236; 1958, £1,658,589; 1959, £1,458,499.

(ii) *Geelong Harbor Trust.* The Geelong Harbor Trust, constituted in 1905, is under the control of three Commissioners appointed from time to time by the Governor-in-Council. One of these, the chairman, is on a full time basis.

At the end of 1959, there were 17 effective berths in the port, while two extra berths at Refinery Pier were under construction and a further berth for general cargo is in the course of planning. Four berths have a depth of 36 feet at low water and all others (except Yarra Pier 29 feet) have a depth of 32 feet at low water.

Total trade for 1959 amounted to 4,711,605 tons, imports being 3,048,231 tons and exports 1,663,374 tons. During 1959, 520 vessels with a total gross tonnage of 4,424,395 tons entered the port.

Revenue for the year 1959 was £992,814 and expenditure from revenue totalled £603,872. At 31st December, 1959, the value of the Trust's fixed assets was £7,679,486 and loans outstanding amounted to £2,939,004.

(iii) *Portland Harbor Trust.* Construction of an all weather deep-sea port of three berths with a low water depth of 36 feet was commenced following the proclamation of the Portland Harbor Trust Act on 18th May, 1951. This was completed to operational standards in 1960.

Operating revenue for the year ended 30th June, 1959, was £46,475 and revenue expenditure was £35,696. The value of the Trust's fixed assets, less depreciation, was £4,559,110 at 30th June, 1959, and loans and advances outstanding amounted to £4,755,111.

During the year ended 30th June, 1959, total trade of the port was 145,562 tons which was carried in 66 vessels of a total gross tonnage of 460,674.

(iv) *Other Victorian Ports.* There are no other Victorian ports of more than minor importance.

3. *Queensland.*—(i) *General.* The ports of Queensland, except Brisbane and certain minor ports, are administered by Harbour Boards with members representing the towns and districts served by the ports. Brisbane and the minor ports are controlled by the State Treasury through the Department of Harbours and Marine, which supervises the engineering activities of the other ports.

(ii) *Brisbane.* Brisbane accommodates comfortably, in its dredged and improved river, the largest vessels in the Australian trade. The main centres for shipping, although further downstream than formerly because of the increasing size of vessels, are still within easy access of the city. Adequate dry-docking facilities are available. The finances of Brisbane Harbour for the years 1954-55 to 1958-59 are shown below:—

BRISBANE HARBOUR: FINANCES.
(£'000.)

Year.	Loan Indebtedness at 30th June.	Receipts.		Payments.	
		Harbour Dues.	Total.	Working Expenses.(a)	Total.
1954-55	2,633	688	853	522	693
1955-56	2,899	701	817	582	772
1956-57	3,011	671	918	843	1,048
1957-58	3,042	696	938	731	944
1958-59	2,702	709	1,097	664	883

(a) Excludes Interest and Redemption included in Total.

In addition to Brisbane Harbour, the Department of Harbours and Marine also controls the Brisbane Dry Dock, the Cairncross Dock, the Brisbane River, and ten smaller harbours not administered by harbour boards.

(iii) *Harbour Boards.* Harbour boards control the ports of Bowen, Bundaberg, Cairns, Gladstone, Mackay, Rockhampton and Townsville. Finances for each port for the year ended 30th June, 1959, are shown below, together with a summary for the years ended 30th June, 1955 to 1959.

HARBOUR BOARDS, QUEENSLAND: FINANCES.
(£.)

Harbour Board.	Loan Indebted- ness at 30th June.	Revenue.		Expenditure (excluding Loan).		Surplus (+) or Deficit (-).
		Wharf- age and Harbour Dues.	Total.	Working Expenses.	Total (including Interest and Redemption). (a)	
Bowen	275,448	40,568	68,681	39,985	56,307	+ 12,374
Bundaberg	1,977,953	88,979	240,976	(b) 4,742	327,401	- 86,425
Cairns	252,270	194,579	273,776	216,814	258,835	+ 14,941
Gladstone	615,669	47,929	100,713	27,309	81,995	+ 18,718
Mackay	1,367,985	234,264	446,198	86,147	417,475	+ 28,723
Rockhampton	545,628	53,883	64,418	34,497	64,021	+ 397
Townsville	2,348,368	238,620	407,647	192,897	490,013	- 82,366
Total, 1958-59 ..	7,383,321	898,822	1,602,409	602,391	1,696,047	- 93,638
„ 1957-58 ..	5,435,172	775,436	1,226,581	603,081	1,190,356	+ 36,225
„ 1956-57 ..	3,567,335	757,778	1,005,986	578,259	1,170,528	- 164,542
„ 1955-56 ..	2,885,528	720,642	955,846	512,776	1,361,568	- 405,722
„ 1954-55 ..	2,807,527	766,504	1,108,613	530,541	996,604	+ 112,009

(a) Includes expenditure on capital works from accumulated revenue.

(b) Excludes wages.

4. *South Australia.*—*The South Australian Harbors Board.* All South Australian harbours are controlled by the South Australian Harbors Board, which consists of three Commissioners appointed by the Governor for a period of five years and eligible for re-appointment. The Board is responsible to the Minister of Marine for the discharge of its duties and functions. The most important ports are the five deep sea ports of Port Adelaide,

Port Pirie, Wallaroo, Port Lincoln and Thevenard. At a few ports, the wharves or jetties are privately controlled, the principal of these being at Whyalla, Ardrossan and Rapid Bay, all of which are controlled by the Broken Hill Pty. Co. Ltd. Port Augusta is controlled by the Commonwealth Railways on behalf of the Commonwealth Government. Maximum depths of water (low water ordinary spring tide) at the wharves of the main ports range from 20 to 24 feet at Port Pirie to 35 feet at Port Adelaide (Outer Harbour). The following table shows the finances of the Board for 1955-56 to 1959-60:—

THE SOUTH AUSTRALIAN HARBORS BOARD: FINANCES.

(£.)

Year.	Capital at 30th June. (a)	Revenue.	Expenditure from Revenue.			Surplus (+) or Deficit (—)
			Working Expenses.	Interest.	Total.	
1955-56..	12,366,653	1,920,340	1,451,296	404,188	1,855,484	+ 64,856
1956-57..	13,232,185	2,112,718	1,427,882	434,042	1,861,924	+ 250,794
1957-58..	14,189,715	2,119,826	1,487,014	505,322	1,992,336	+ 127,490
1958-59..	15,325,443	2,156,669	1,464,006	550,364	2,014,370	+ 142,299
1959-60..	16,324,529	2,314,999	1,574,774	612,711	2,187,485	+ 127,514

(a) State Treasurer's Funds and Reserve employed.

5. *Western Australia.*—(i) *Fremantle Harbour Trust.* The Port of Fremantle is operated and controlled by the Fremantle Harbour Trust, a body corporate administered by a Board of five Commissioners appointed triennially by the Governor. The port covers an extensive water area of some 180 square miles and comprises an Inner and an Outer Harbour. The Inner Harbour includes 18 deep water land-backed berths, providing more than 680,000 sq. ft. of covered storage space and 11,148 feet of wharf berth accommodation. All Inner Harbour berths are dredged to a depth of 36 feet. The Outer Harbour includes three main anchorages, Gage Roads, Owen Anchorage and Cockburn Sound. Deep water jetties are available in the Outer Harbour including the Oil Refinery Jetties in Cockburn Sound. Ocean going deep draft ships enter the Sound by means of channels dredged through Success and Parmelia Banks to a low water depth of 38 feet and a bottom width of 500 feet. The depth of water at the Refinery Jetties is a minimum of 44 feet.

Gross earnings for the year 1959-60 amounted to £2,756,490, working expenses to £2,149,418, interest charges to £244,735, debt redemption to £68,703 and renewals fund to £2,000. Special loan redemptions were £281,019 and net capital totalled £7,281,508.

(ii) *Albany Harbour Board.* The Albany Harbour is controlled by a board of five members appointed by the Government. The depth of water in the entrance channel is 33 feet, at one arm of the jetty 31 feet and at the other arm 34 feet. On approaches to wharf berths, the depth is 30 feet and dredging to accomplish a depth of 34 feet is being carried out. Wharf accommodation consists of 1,115 feet, and in addition the Deepwater Jetty has 2,500 feet of accommodation. Gross earnings for the year 1959-60 amounted to £116,757, working expenses £47,764, interest and sinking fund charges, £84,534, and amounts debited to loan capital account, £1,725,406.

(iii) *Bunbury Harbour Board.* The Bunbury Harbour is controlled by a board of five members appointed by the Government. The depth of water in the harbour is 30 feet and berthing accommodation is 3,700 feet. Gross earnings for the year 1959-60 amounted to £110,901, working expenses £85,555, interest and sinking fund charges £76,623, and amounts debited to loan capital account, £1,784,385.

(iv) *Other Ports.* The following ports are controlled by the State Government Harbour and Lights Department:—Geraldton, Yampi, Port Hedland, Carnarvon, Wyndham, Derby, Point Samson, Busselton, Onslow and Broome. The Port of Esperance is under the control of the Railways Commission.

6. *Tasmania.*—There are eight marine boards and two harbour trusts in Tasmania. The marine boards control the ports of Hobart, Launceston, Stanley (Circular Head), Burnie and Wynyard (Table Cape), Devonport, Strahan, Currie (King Island), and White-mark (Flinders Island), and the harbour trusts those of Smithton and Leven. Aggregate

receipts of revenue accounts of all these authorities during the year 1958–59 were £1,297,468, and expenditures £1,225,285 including loan charges £239,320. The total receipts of the Hobart Marine Board during 1958–59 were £553,431, loan charges amounted to £91,513 and total expenditure to £576,462. Launceston Marine Board receipts during 1958–59 amounted to £311,723, loan charges to £25,532 and total expenditure to £287,726. Loan indebtedness of all marine boards and trusts at 30th June, 1959, was £3,372,508, of which £1,079,967 was in respect of Hobart (including Port Huon Wharf) and £345,254 in respect of Launceston.

Hobart, Launceston, Burnie and Devonport are the principal ports of Tasmania. In addition to their interstate and intra-state traffic, there is also considerable oversea shipping. Depths of water at wharves vary, in general, between 16 and 34 feet (low water ordinary spring tide), but at Hobart there is a depth of water of from 30 to 52 feet.

§ 7. Fire Brigades.

1. *New South Wales*.—A Board of Fire Commissioners, consisting of five members, one appointed by the State Government (President) and one each representing insurance companies, local government authorities, volunteer firemen, and permanent firemen, operates under the Fire Brigades Act 1909–1958, and 158 fire districts had been constituted at the end of 1959. The cost of maintenance of fire brigades is borne in proportions of local councils and the Government each one-eighth, and the insurance companies three-quarters. The Board's borrowing power is limited to £1,000,000.

At 31st December, 1959, the authorized strength of the Fire Brigade throughout the fire districts of New South Wales was 378 officers and 1,112 permanent and 2,608 volunteer firemen. Corresponding figures for the Sydney Fire District were 304, 1,008 and 327. The revenue for the year 1959 was £2,866,137, made up as follows:—from the Government, £355,381; municipalities and shires, £355,381; fire insurance companies and firms, £2,132,289, and from other sources, £23,086. The disbursements for the year were £2,830,760. The Board of Fire Commissioners provides the fire protection services for Canberra, in the Australian Capital Territory, and the cost of these services is reimbursed by the Commonwealth Government.

A Fire Regions and a Bush Fire Fighting Fund exists for the prevention and fighting of bush fires and is financed from contributions by the Government, councils and insurance companies in the proportion of one-quarter, one-quarter and one-half, respectively. At 30th June, 1960, Volunteer Brigades, equipped by means of this fund, numbered 2,500 with an active membership in excess of 60,000 persons. Up to 30th June, 1960, expenditure from the Fund for equipment amounted to £1,354,790.

2. *Victoria*.—(i) *General*. In Victoria, fire brigades are controlled by the Metropolitan Fire Brigades Board consisting of ten members, including an employees' representative, and the Country Fire Authority also consisting of ten members.

(ii) *Metropolitan Fire Brigades Board*. The Metropolitan Fire Brigades Board receives contributions from the municipalities and the insurance companies in the proportion of one-third and two-thirds respectively. On 30th June, 1960, the Board had under its control 44 stations, 883 permanent staff, 211 special service and clerical, etc., staff, and 15 part-time firemen. The total receipts for 1959–60 were £1,797,274 comprising contributions, £1,457,776, receipts for services, £141,321 and interest and sundries, £198,177. The expenditure was £1,796,194.

(iii) *Country Fire Authority*. This authority is responsible for the prevention and suppression of fires in the "country area of Victoria", which embraces the whole of the State outside the metropolitan fire district, excluding State forests and certain crown lands. The country area has been divided into 24 fire control regions, three of which (Ballarat, Bendigo and Geelong) are wholly urban and the remainder mixed urban and rural. The Country Fire Authority receives contributions in the proportion of two-thirds from insurance companies and one-third from the Treasury. At 30th June, 1960, the Act applied to 192 insurance companies, 205 urban and 1,031 rural fire brigades. The effective registered strength of the brigades was 100,959 members.

Income for the year 1959–60 amounted to £569,870. Total expenditure other than loan amounted to £525,604.

3. *Queensland.*—(i) *General.* Fire Districts are constituted under the Acts of 1920–1956. For each district, there must be a Fire Brigades Board consisting of seven members, and the cost of maintenance of each brigade is proportioned as follows:—Treasury, one-seventh, insurance companies five-sevenths, and local authorities one-seventh. The insurance companies' contribution is paid to the State Government and thence to Fire Brigades.

(ii) *Fire Brigade Boards.* At 30th June, 1959, there were 75 Fire Brigade Boards. The total number of stations was 139 and full-time staff numbered 766, including 22 administrative, 153 officers and 591 firemen. Volunteers numbered 126. Part-time staff numbered 1,042 including 74 administrative, 107 officers and 861 firemen. The total revenue for the year 1958–59 was £1,057,420, received mainly from the following sources:—Government £143,619, local authorities £143,609, insurance companies £718,452. Loan receipts (Government and other) were £93,648. The total expenditure for the year was £1,107,541, the chief items being salaries and wages £804,598, and interest and redemption of loans £76,400.

4. *South Australia.*—The Fire Brigades Act 1936–1958 provides for a board of five members, and the expenses and maintenance of brigades are defrayed in the proportion of two-ninths by the Treasury (subject to certain limits when the contribution exceeds £10,000), five-ninths by insurance companies, and two-ninths by the municipalities concerned. At 30th June, 1960, there were altogether 35 fire brigade stations, of which 12 were metropolitan and 23 country.

The strength of the permanent staff at 31st December, 1960, was 389, including 270 officers and men, 89 country auxiliary firemen and 30 other employees (including maintenance workers). The total revenue for the year 1959–60 was £445,926, including contributions of £379,701 made up as follows:—insurance companies £228,628, Treasury £59,622 and municipalities £91,451. The Treasury contribution includes an additional grant of £47,420.

5. *Western Australia.*—In 1942, certain municipal and road board districts were constituted fire districts under the control of the Western Australian Fire Brigades Board. There were 37 fire districts at 30th September, 1959. The contribution to the Board is made in the proportion of two-ninths from the Government, two-ninths from local government authorities, and five-ninths from insurance companies. The number of local government authorities and insurance companies who contributed numbered 56 and 151 respectively. The brigades, throughout the State, controlled by the Western Australian Fire Brigades Board at 30th September, 1959, numbered 55, with a staff of 1,503 including 265 permanent officers and firemen and 1,238 volunteer brigade officers and firemen. The revenue for the year ended 30th September, 1959, was £479,596 and the expenditure £470,173.

Under the Bush Fires Act, a Bush Fires Board, consisting of ten members, five of whom are nominated by the Road Board Association, was set up to advise the Minister for Lands on bush fire control. The Act also provides for the registration of bush fire control officers, who numbered 1,523 at 30th June, 1960, and the establishment of bush fire brigades, 716 at 30th June, 1960. Many individual brigades are large organizations with numerous self-contained sections.

6. *Tasmania.*—The Fire Brigades Act 1945 provided for the creation of the Fire Brigades Commission of Tasmania to co-ordinate the activities of existing fire brigades boards, while leaving the responsibility for individual control and management with the boards. The Commission consists of two persons nominated by the Minister, one person elected by the City or Municipal Councils representatives and three persons elected by the insurance representatives of the Fire Brigades Boards. Contributions towards the cost of operations are on the basis of one quarter each from the Treasury and the municipalities respectively and one half from the insurance companies concerned. The cost for the year 1958–59 amounted to £152,000. There were, at 30th June, 1959, 23 brigades controlling 37 stations, and their aggregate staffs numbered 542, including 100 permanent officers, 360 part-time firemen, including officers, and 82 volunteers.

CHAPTER XX.

PRIVATE FINANCE.

NOTE.—Further information on the subjects dealt with in this chapter is contained in the annual bulletin *Finance, Part 1.—Public and Private Finance* published by this Bureau. Current information is contained in the *Quarterly Summary of Australian Statistics*, the *Monthly Review of Business Statistics*, the *Digest of Current Economic Statistics* (monthly), and the monthly mimeograph statements *Australian Banking Statistics* (bulletin and preliminary statement), *Australian Savings Bank Statistics* (bulletin and preliminary statement) and *Australian Life Assurance Statistics* (bulletin). The annual mimeograph bulletin *Australian Fire, Marine and General Insurance Statistics* contains the most recent information available on this subject. Other relevant mimeograph statements are:—*Retail Hire Purchase Operations of Finance Businesses* (monthly), *New Capital Raisings by Companies in Australia* (quarterly) and *Capital and Maintenance Expenditure by Private Businesses in Australia* (half-yearly).

A. CURRENCY.

§ 1. General.

The Australian monetary system is based on the British system, of which the unit is the pound (£) divided into 20 shillings (s.) each of 12 pence (d.). When the Australian currency was introduced in 1909 the Australian pound was specified as equivalent to 123.27447 grains of gold $\frac{11}{12}$ ths fine or 113.002 grains of fine gold and, until the depression in 1930, was identical with the pound sterling. There was a gradual depreciation of the Australian pound in terms of sterling from the beginning of 1930 until 3rd December, 1931, when it was stabilized at the rate of £125 Australian = £100 sterling. This relationship has been maintained until the present time. Following the depreciation, no action was taken to define the value of the Australian pound in terms of gold until 5th August, 1947, when the Australian Government advised the International Monetary Fund, in terms of the membership agreement, that the par value of the Australian pound was 2.86507 grammes (44.2148 grains) of fine gold. From 18th September, 1949, this was reduced to 1.99062 grammes (30.720 grains) of fine gold.

When the Commonwealth was established in 1901, the currency in Australia consisted of United Kingdom gold, silver and bronze coins, notes issued by the banks, and Queensland Treasury notes. Queensland Treasury notes were in circulation in Queensland only, having superseded bank notes in that State after the 1893 crisis. Under the Commonwealth Constitution, the control of currency, coinage and legal tender and the issue of paper money was vested in the Commonwealth. The Commonwealth assumed these powers by enacting the Coinage Act 1909 and the Australian Notes Act 1910.

Australian notes are legal tender in Australia for any amount. Australian silver coins are legal tender for any amount not exceeding forty shillings and Australian bronze coins are legal tender for any amount not exceeding one shilling.

§ 2. Coinage.

1. *Coins in Circulation.*—Brief historical notes relating to the Australian Coinage are given in Official Year Book No. 37, pages 557 and 558. For weight, metal, composition, etc., of Australian coins in circulation see Official Year Book No. 39, page 697.

The silver coins issued prior to July, 1947, have a millesimal fineness of 925 (thirty-seven fortieths silver and three fortieths copper) and those issued since 1st July, 1947 (dated 1946 and later) have a millesimal fineness of 500 (one-half silver and one-half other metals).

From 1910 to 1916, Australian coins were minted in England by the Royal Mint, London, and the Mint, Birmingham Ltd., and in 1916 and 1917 by the Indian Mints. The minting of Australian coins was undertaken by the Australian Mints in 1916, and coins have been minted at the Melbourne branch of the Royal Mint from 1916 to the present time, at the Sydney branch from 1919 until that Mint closed in 1926, and at the Perth branch in 1922 and from 1940 to the present time.

During the 1939–45 War, the two Australian Mints were unable to meet the demand for Australian coins, and some coins were minted in the United States of America and India. In 1951–52 and 1952–53, some coins were minted at the Royal Mint, London, to meet the heavy demand for coins. Details of Australian coins obtained from each mint to 30th June, 1960, are as follows:—Melbourne, £47,293,000; Perth, £1,529,000; Sydney, £488,000; United Kingdom Mints, £3,016,000; United States Mints, £6,000,000; Indian Mints, £169,000; Total, £58,495,000.

2. **Issues of Australian Coins.**—The net issues of Australian silver and bronze coin from 1910 to 30th June, 1960, were:—Crown (5s.), £276,000; Florin (2s.), £19,551,000; Shilling (1s.) £7,803,000; Sixpence (6d.), £5,713,000; Threepence (3d.), £6,087,000; Total silver coin, £39,372,000; Penny (1d.), £2,461,000, Half-penny (½d.), £740,000; Total bronze coin, £3,201,000. Except in the total, no allowance has been made for £58,000 worth of damaged silver coin, for which denominations are not available, withdrawn since 1910.

3. **Profits on Coinage of Silver and Bronze.**—Australian silver and bronze coins are token coins and, as the face value of the coins is greater than the value of the bullion they contain, a profit is made from their issue. This profit forms part of the Commonwealth Consolidated Revenue. In the following table, details are given of the value of coins issued, the cost of bullion, the cost of minting and sundry expenses connected with the issue, and the profits made on the issue of coins during the years 1955–56 to 1959–60.

AUSTRALIAN SILVER AND BRONZE COINS: PROFITS FROM ISSUE.
(£.)

Year.	Face Value of Coin Issued. (a)	Cost of Bullion.	Gross Profit.	Cost of Minting and Sundry Charges.	Net Profit.
SILVER COIN.					
1955–56	915,900	514,848	401,052	95,770	305,282
1956–57	1,932,962	1,101,740	831,222	245,241	585,981
1957–58	1,509,885	1,032,098	477,787	205,916	271,871
1958–59	1,304,682	933,065	371,617	139,948	231,669
1959–60	2,157,682	1,505,128	652,554	182,558	469,996
BRONZE COIN.					
1955–56	174,889	163,393	11,496	117,347	— 105,851
1956–57	51,560	61,957	— 10,397	58,788	— 69,185
1957–58	67,785	59,987	7,798	56,985	— 49,187
1958–59	78,906	61,786	17,120	100,252	— 83,132
1959–60	121,354	87,422	33,932	88,988	— 55,056
TOTAL.					
1955–56	1,090,789	678,241	412,548	213,117	199,431
1956–57	1,984,522	1,163,697	820,825	304,029	516,796
1957–58	1,577,670	1,092,085	485,585	262,901	222,684
1958–59	1,383,588	994,851	388,737	240,200	148,537
1959–60	2,279,036	1,592,550	686,486	271,546	414,940

(a) Includes selected and proof pieces.

NOTE.—Minus sign (—) denotes a loss.

4. **Australian Mints.**—(i) *General.* Soon after the discovery of gold in Australia, a branch of the Royal Mint was established in Sydney. The formal opening took place on 14th May, 1855. The Melbourne branch was opened on 12th June, 1872, and the Perth Branch on 20th June, 1899. The States of New South Wales, Victoria and Western Australia provided an annual endowment in return for which the mint receipts were paid to the respective State Treasuries. Owing to losses incurred in its operations, the Sydney branch was closed at the end of 1926.

Since their establishment, the Australian branches of the Royal Mint have been primarily concerned with the refining of gold, minting of Imperial gold coins and the production of bars and ingots of gold bullion for export. The minting of Imperial gold coins was discontinued in September, 1931. In 1916, the Melbourne branch took over the minting of Australian silver and bronze coins from the Royal Mint, London. Australian coins were also minted at the Sydney Mint from 1919 to 1926 and at the Perth Mint in 1922 and from 1940 to the present time. The Melbourne branch has also minted token coins for the Territory of New Guinea and for New Zealand.

(ii) *Gold Receipts and Issues.* (a) *Receipts.* The receipts of gold at Australian mints during 1959 and 1960 amounted to 991,846 and 972,963 fine ounces respectively (Melbourne, 127,533 and 115,491 fine ounces respectively; Perth, 864,313 and 857,472 fine ounces respectively).

(b) *Issues.* The Australian mints issue gold bullion for the use of local manufacturers (jewellers, dentists, etc.) and for export. Since September, 1931, when the United Kingdom departed from the gold standard, the minting and issue of gold coins by Australian mints has ceased. Australian exports of gold are mainly in the form of 400-oz. ingots, but in earlier years a considerable amount of gold was shipped to India in 10-oz. bars. Since early in the 1939-45 War, all gold has been acquired by the Reserve Bank, and the export and use of gold have been subject to regulation by the Commonwealth Government. From December, 1951, export of a proportion of newly-mined gold for sale on premium markets overseas was permitted. The issues from Australian mints during 1959 and 1960 amounted to 990,559 and 976,410 fine ounces respectively (Melbourne, 125,961 and 118,631 fine ounces respectively; Perth, 864,598 and 857,779 fine ounces respectively).

5. *Price of Gold.*—The following table shows the average prices of gold and the average values of the sovereign in London and Australia for the years 1955-56 to 1959-60. The average price of gold in Australia is based on the Reserve Bank's buying price for gold lodged with the mints.

PRICE OF GOLD: LONDON AND AUSTRALIA.

Period.	London.		Australia.			
	Average price per fine oz.	Average value of Sovereign.	Average price per fine oz.	Sovereign.		Equivalent to a premium of—
				Average value.		
	£Stg. s. d.	£Stg. s. d.	£A. s. d.	£A. s. d.		%
1955-56..	12 9 11	2 18 10	15 12 6	3 12 6		267.8
1956-57..	12 10 8	2 18 10	15 12 6	3 12 6		267.8
1957-58..	12 9 10	2 18 10	15 12 6	3 12 6		267.8
1958-59..	12 9 11	2 18 10	15 12 6	3 12 6		267.8
1959-60..	12 10 3	2 18 10	15 12 6	3 12 6		267.8

In December, 1951, arrangements were made whereby producers could sell a proportion of newly-mined gold for industrial purposes on overseas premium markets. Under these arrangements, gold is acquired by the Reserve Bank in the usual manner and sold, at the Bank's buying price, to an association representing gold producers participating in the scheme. The association pays the Bank's handling charges and the costs of preparation of the gold and makes arrangements for export and sale. The gold can be sold only against payment in United States dollars. Profits earned by the association after meeting administrative expenses are distributed to members in proportion to the quantity of gold delivered to the Reserve Bank. Until August, 1952, when permission was given for the export of fine gold, gold exported under this arrangement was not to exceed a fineness of 22 carats ($\frac{11}{12}$ ths.).

The average price per fine ounce in Australian currency (f.o.b.) obtained for gold exported under this scheme for the only month during 1959-60 for which there were sales was—September, £15 12s. 10d.

§ 3. Notes.

1. *General.*—Brief historical notes relating to the circulation and issue of notes in Australia are given in Official Year Book No. 37, pages 561 and 562. The issue of notes intended for circulation as money other than by the Reserve Bank is prohibited.

2. **The Australian Note Issue.**—(i) *General.* Notes in circulation in Australia are issued by the Reserve Bank through the Note Issue Department. The Bank is authorized to issue Australian notes in denominations of 5s., 10s., £1, £5, £10 and any multiple of £10. The Reserve Bank is not required to hold a specific reserve in gold against the note issue, but the assets of the Note Issue Department must be held or invested in gold, on deposit with any bank, or in securities of the Government of the United Kingdom, the Commonwealth, or a State. Under the Reserve Bank Act 1959, the profits of the Note Issue Department are paid to the Commonwealth.

Australian notes are legal tender to any amount within Australia and have been issued in denominations of 10s., £1, £5; £10, £20, £50, £100 and £1,000. Notes of denominations higher than £10, however, have not been issued to the public since 1945.

(ii) *Australian Notes in Circulation.* Particulars of the average values of notes in circulation for the years 1955–56 to 1959–60 are given in the following table:—

AUSTRALIAN NOTE ISSUE.
(£'000.)

Denomination.	Average of monthly statements(a) for year—				
	1955–56.	1956–57.	1957–58.	1958–59.	1959–60.
10s.	10,496	10,867	11,170	11,507	11,919
£1	70,564	72,384	69,704	68,919	69,638
£5	180,565	171,067	174,430	177,931	186,144
£10	113,809	131,569	135,967	139,205	146,393
£20	4	4	4	3	3
£50	46	44	42	37	34
£100	50	49	47	42	38
£1,000	802	901	601	634	2,330
<i>Held by Banks</i>	42,909	44,433	45,490	46,777	53,084
<i>Held by Public</i>	333,427	342,452	346,475	351,501	363,415
Total	376,336	386,885	391,965	398,278	416,499

(a) Last Wednesday in month.

(iii) *Reserve Bank—Note Issue Department.* The following statement shows particulars of liabilities and assets of the Note Issue Department of the Reserve Bank as at 30th June, 1959 and 1960:—

RESERVE BANK OF AUSTRALIA(a): NOTE ISSUE DEPARTMENT—
LIABILITIES AND ASSETS, 30th JUNE.
(£'000.)

Liabilities.	1959.	1960.	Assets.	1959.	1960.
Notes on Issue(b) ..	391,457	419,112	Gold and Balances held abroad (including money at short call)	125,416	198,457
Special Reserve—			Government Securities (including Commonwealth Treasury Bills)	280,456	235,033
Premium on gold sold	4,755	4,755	Other Assets ..	57	60
Other Liabilities(b) ..	9,717	9,683			
Total	405,929	433,550	Total	405,929	433,550

(a) Prior to 14th January, 1960, Commonwealth Bank of Australia. (b) Notes of a denomination not exceeding one pound which have been on issue for more than twenty years, and notes of a denomination exceeding one pound which have been on issue for more than 40 years are not included in the item "Notes on Issue" but are included in the item "Other Liabilities".

In 1959–60, the net profits of the Note Issue Department amounted to £10,516,002 and were paid to the Commonwealth of Australia.

B. BANKING.

§ 1. Cheque-Paying Banks.

1. **Royal Commission on Monetary and Banking Systems.**—A Royal Commission was appointed by the Commonwealth Government in November, 1935, to inquire into the monetary and banking systems in operation in Australia and to report whether any, and if so what, alterations were desirable in the interests of the people of Australia as a whole, and the manner in which any such alterations should be effected. The Commission presented its report on 15th July, 1937, and a summary of the recommendations appears in Official Year Book No. 31, page 1010.

2. **Banking Legislation.**—(i) *Commonwealth Legislation.* Under Section 51 of the Commonwealth Constitution, the Commonwealth Parliament has power to legislate with respect to "Banking, other than State banking; also State banking extending beyond the limits of the State concerned, the incorporation of banks, and the issue of paper money." The principal Commonwealth Acts at present in force relating to Banking are—

- (a) *The Reserve Bank Act* 1959, which provides for the constitution and management of the Reserve Bank of Australia and the management of the Australian note issue;
- (b) *The Commonwealth Banks Act* 1959, which provides for the constitution and management of the Commonwealth Banking Corporation, Commonwealth Trading Bank of Australia, Commonwealth Savings Bank of Australia and Commonwealth Development Bank of Australia; and
- (c) *The Banking Act* 1959, which provides for the regulation of banking and for the protection of the currency and the public credit of the Commonwealth.

The Banking Act 1959, which replaced the Banking Act 1945–1953, was assented to on 23rd April, 1959, and came into operation on 14th January, 1960. It applies to all banks, except State banks trading in their own State, operating in Australia or the Territories of the Commonwealth. The objects of the Act are:—(a) to provide a legal framework, uniform throughout Australia, for regulating the banking system; (b) to safeguard depositors of the banks from loss; (c) to provide for the co-ordination of banking policy under the direction of the Reserve Bank; (d) to control the volume of credit in circulation and bank interest rates; (e) to mobilize and to provide machinery for the control of the foreign exchange and gold resources of the Australian economy. A summary of the main provisions of the Act is given in Official Year Book No. 46, pages 759 and 760.

(ii) *State Legislation.* State banking legislation relates to the incorporation of banks and the constitution and management of State banks. The Acts under which the various banks are incorporated differ. While some of the older banks were incorporated by special Act or Charter, e.g., the Bank of New South Wales by Act of Council 1817, The Bank of Adelaide by Act of the South Australian Parliament, and the Bank of New Zealand by Act of the General Assembly of New Zealand, most of the banks are incorporated under a Companies Act of the States or the United Kingdom. This is also the case with those banks which were reconstructed after the crisis of 1893. State banks, constituted under State Acts, transacting general banking business, are The Rural Bank of New South Wales, the State Bank of South Australia and The Rural and Industries Bank of Western Australia.

3. **Presentation of Banking Statistics.**—Because of the different purposes they serve in the Australian financial system, Australian banks have been divided for statistical purposes into five groups and a separate series is presented for each. These groups are:—

- (a) *The Reserve Bank of Australia.* Formerly the Commonwealth Bank, this bank is the Central Bank. It also provides special banking facilities through the Rural Credits Department. Statistics of the Central Banking Business (including the Note Issue Department) and of the Rural Credits Department are presented in separate series.
- (b) *The Commonwealth Development Bank of Australia.* This bank, which commenced operations on 14th January, 1960, under the control of the Commonwealth Banking Corporation, an organization entirely separate from the Reserve Bank, was formed basically from an amalgamation of the Mortgage Bank and Industrial Finance Departments of the Commonwealth Bank. Its prime purpose is to assist in the development of worth-while enterprises in the field of both primary and secondary industries which would otherwise be unable to obtain the necessary finance on reasonable and suitable terms and conditions.

- (c) *The Commonwealth Trading Bank of Australia.* This bank commenced operations on 3rd December, 1953. On that date, under the provisions of the Commonwealth Bank Act 1953, it took over the business of the General Banking Division of the Commonwealth Bank. On 14th January, 1960, under the provisions of the Commonwealth Banks Act 1959, it came under the control of the Commonwealth Banking Corporation.
- (d) *Private Trading Banks.* This group was formerly known as the Nine Trading Banks, but the number of banks included has been reduced to seven by amalgamations. With the Commonwealth Trading Bank, these banks provide the major part of the general banking facilities in Australia. The banks included in this group are—the Australia and New Zealand Bank Ltd. (an amalgamation of the Bank of Australasia Ltd. and the Union Bank of Australia Ltd.), The Bank of Adelaide, the Bank of New South Wales, The Commercial Bank of Australia Ltd., The Commercial Banking Company of Sydney Ltd., The English, Scottish and Australian Bank Ltd. and The National Bank of Australasia Ltd. (which has absorbed The Queensland National Bank Ltd. and The Ballarat Banking Co. Ltd.).
- (e) *Other Banks.* This group consists of (i) three State Government Banks—The Rural Bank of New South Wales, the State Bank of South Australia and The Rural and Industries Bank of Western Australia, which, in their general banking business, specialize mainly in financing rural industries, (ii) one joint stock bank—The Brisbane Permanent Building and Banking Co. Ltd., which has specialized business in one district only, and (iii) branches of three overseas banks—the Bank of New Zealand, Comptoir National d'Escompte de Paris and the Bank of China, which transact limited business in Australia and are mainly concerned with financing trade, etc., between Australia and overseas countries.

In addition to the series mentioned above, a series for all cheque-paying banks is presented. This series covers the Commonwealth Trading Bank, the Private Trading Banks and the other cheque-paying banks included in the fifth group.

Unless otherwise stated, the statistics presented are averages of weekly returns. Averages of liabilities and assets are the averages of the liabilities and assets of the banks on the weekly balance days during the period concerned. Averages of bank clearings and debits to customers' accounts are the averages of transactions for weeks ended on the balance days during the period.

4. **Banks Transacting Business in Australia.**—(i) *Number of Branches.* At 30th June, 1960, the 15 banks operating in Australia transacted all classes of banking business at 3,769 branches and 1,668 agencies. The Commonwealth Trading Bank and the Private Trading Banks have branches throughout the Commonwealth. The Rural Bank of New South Wales, the State Bank of South Australia and The Rural and Industries Bank of Western Australia, being State Government banks specializing mainly in financing rural industries, have branches only in their respective States. The Brisbane Permanent Building and Banking Co. Ltd. transacts business in Brisbane only. The remaining three banks are branches of overseas banks.

CHEQUE-PAYING BANKS: NUMBER OF BRANCHES(a) AT 30th JUNE, 1960.

Banks.	New South Wales.	Victoria.	Q'land.	South Aust.	West. Aust.	Tasmania.	Nor. Terr.	Aust. Cap. Terr.	Australia.
Commonwealth Trading Bank of Australia ..	293	82	80	26	48	10	2	3	544
Private Trading Banks ..	992	904	494	290	237	72	9	12	3,010
Other Cheque-paying Banks ..	136	2	1	36	40	..	..	..	215
All Cheque-paying Banks—									
Metropolitan areas ..	590	495	142	131	134	19	..	..	1,511
Elsewhere ..	831	493	433	221	191	63	11	15	2,258
Total	1,421	988	575	352	325	82	11	15	3,769

(a) Includes Head Offices. Excludes 1,668 agencies.

(ii) *Capital Resources, Profits and Dividends.* The paid-up capital of cheque-paying banks (excluding the three oversea banks, the Bank of New Zealand, the Bank of China and the Comptoir National d'Escompte de Paris), together with their reserve funds, their profits and the amount of their last dividends, are shown in the two following tables. The information relates to the balance-sheet last preceding 31st October, 1959 and 1960. All amounts are expressed in Australian currency.

CHEQUE-PAYING BANKS(a): CAPITAL RESOURCES, PROFITS AND DIVIDENDS, 1959.

(£'000.)

Bank.	Paid-up Capital. (b)	Re-serve Funds.	Balance of Profit and Loss Account. (c)	Total Share-holders' Funds. (d)	Reserve Liability of Share-holders. (e)	Net Profit for year. (f)	Net Dividends. (g)
<i>Commonwealth Trading Bank of Australia</i>	5,429	3,296	..	8,725	..	766	..
<i>Private Trading Banks—</i>							
Australia and New Zealand Bank Ltd.	12,801	8,785	1,985	23,571	10,668	1,051	941
The Bank of Adelaide	1,750	1,850	213	3,813	1,750	208	175
Bank of New South Wales	21,950	14,500	1,457	37,907	21,950	2,312	1,877
The Commercial Bank of Australia Ltd.	6,223	3,610	550	10,383	..	592	495
The Commercial Banking Co. of Sydney Ltd.	7,200	6,600	576	14,376	7,200	754	648
The English, Scottish and Australian Bank Ltd.	6,275	3,765	827	10,867	..	418	346
The National Bank of Australasia Ltd.	10,089	7,500	1,004	18,593	2,700	1,030	908
The Queensland National Bank Ltd. (in vol. liq.) (h) .. .. .	..	1	130	131	..	..	..
The Ballarat Banking Co. Ltd. (in vol. liq.) (h) .. .. .	..	..	15	15	..	..	..
<i>Total Private Trading Banks</i>	66,288	46,611	6,757	119,656	44,268	6,365	5,390
<i>Other Cheque-paying Banks—</i>							
The Brisbane Permanent Building and Banking Co. Ltd.	1,000	275	79	1,354	..	85	80
The Rural Bank of New South Wales	15,021	11,483	..	26,504	..	117	..
State Bank of South Australia	7,381	1,499	..	8,880	..	120	..
The Rural and Industries Bank of Western Australia	8,387	315	..	8,702	..	65	..
<i>Total Other Cheque-paying Banks</i>	31,789	13,572	79	45,440	..	387	80
Grand Total	103,506	63,479	6,836	173,821	44,268	7,518	5,470

(a) At various balance sheet dates during 1959. (b) For the Commonwealth Trading Bank, the amount shown in this column is the amount specified as capital in the Commonwealth Bank Act 1945-1953. For the State Bank of South Australia and The Rural and Industries Bank of Western Australia, the amounts shown in this column are capital funds provided by the respective State Governments. Capital of The Rural Bank of New South Wales consists of Inscribed Stock and Debentures issued by the Bank for capital purposes. (c) Includes dividends declared but not paid at date of balance-sheet. (d) For the Commonwealth Trading Bank and the State Banks, the amount shown in this column is total capital and reserves. (See footnote (b).) (e) Includes uncalled capital. (f) For the State Government Banks, the net profit is the profit after writing off bank premises and payment of interest on capital. For the other Banks, the net profit is the profit before writing off bank premises. (g) Dividends paid and payable out of profits earned during 1958-59. (h) These banks are in process of liquidation consequent upon the amalgamation of their business with the National Bank of Australasia Ltd.

CHEQUE-PAYING BANKS(a): CAPITAL RESOURCES, PROFITS AND DIVIDENDS, 1960.

(£'000.)

Bank.	Paid-up Capital. (b)	Reserve Funds.	Balance of Profit and Loss Account. (c)	Total Shareholders' Funds. (d)	Reserve Liability of Shareholders. (e)	Net Profit for year. (f)	Net Dividends. (g)
<i>Commonwealth Trading Bank of Australia</i>	7,429	3,540	..	10,969	..	601	..
<i>Private Trading Banks—</i>							
<i>Australia and New Zealand Bank Ltd.</i>	12,801	8,785	2,073	23,659	10,668	1,030	941
<i>The Bank of Adelaide</i>	1,750	1,850	250	3,850	1,750	212	175
<i>Bank of New South Wales</i>	21,950	14,750	1,476	38,176	21,950	2,489	1,976
<i>The Commercial Bank of Australia Ltd.</i>	6,223	3,610	571	10,404	..	566	495
<i>The Commercial Banking Co. of Sydney Ltd.</i>	7,200	6,600	655	14,455	7,200	803	648
<i>The English, Scottish and Australian Bank Ltd.</i>	6,275	3,765	833	10,873	..	408	346
<i>The National Bank of Australasia Ltd.</i>	10,089	7,500	1,077	18,666	2,700	980	908
<i>The Queensland National Bank Ltd. (in vol. liq.) (h)</i> .. .. .	..	1	130	131	..	..	..
<i>The Ballarat Banking Co. Ltd. (in vol. liq.) (h)</i> .. .. .	..	..	15	15	..	..	..
<i>Total Private Trading Banks</i>	66,288	46,861	7,080	120,229	44,268	6,488	5,489
<i>Other Cheque-paying Banks—</i>							
<i>The Brisbane Permanent Building and Banking Co. Ltd.</i>	1,000	300	83	1,383	..	109	80
<i>The Rural Bank of New South Wales</i>	14,432	11,607	..	26,039	..	124	..
<i>State Bank of South Australia</i>	8,516	1,610	..	10,126	..	111	..
<i>The Rural and Industries Bank of Western Australia</i>	8,313	365	..	8,678	..	50	..
<i>Total Other Cheque-paying Banks</i>	32,261	13,882	83	46,226	..	394	80
Grand Total	105,978	64,283	7,163	177,424	44,268	7,483	5,569

(a) At various balance sheet dates during 1960. (b) For the Commonwealth Trading Bank, the amount shown in this column is the amount specified as capital in the Commonwealth Banks Act 1959. For the State Bank of South Australia and The Rural and Industries Bank of Western Australia, the amounts shown in this column are capital funds provided by the respective State Governments. Capital of The Rural Bank of New South Wales consists of Inscribed Stock and Debentures issued by the Bank for capital purposes. (c) Includes dividends declared but not paid at date of balance-sheet. (d) For the Commonwealth Trading Bank and the State Banks, the amount shown in this column is total capital and reserves. (See footnote (b).) (e) Includes uncalled capital. (f) For the State Government Banks, the net profit is the profit after writing off bank premises and payment of interest on capital. For the other Banks, the net profit is the profit before writing off bank premises. (g) Dividends paid and payable out of profits earned during 1959-60. (h) These banks are in process of liquidation consequent upon the amalgamation of their business with the National Bank of Australasia Ltd.

5. **The Reserve Bank of Australia.**—(i) *General.* The Reserve Bank of Australia, established under the Reserve Bank Act 1959, which came into operation on 14th January, 1960, continued in existence the body corporate known as the Commonwealth Bank of Australia. An account of the progress and development of that Bank is given in earlier issues of the Official Year Book (see No. 37, pp. 570 to 573, and No. 45, pp. 735 to 737).

The general functions of the Reserve Bank are set out in Section 10 of the Reserve Bank Act 1959 which states:—

“ It is the duty of the Board, within the limits of its powers, to ensure that the monetary and banking policy of the Bank is directed to the greatest advantage of

the people of Australia and that the powers of the Bank under this Act, the Banking Act 1959, and regulations under that Act are exercised in such a manner as, in the opinion of the Board, will best contribute to,

- (a) the stability of the currency of Australia;
- (b) the maintenance of full employment in Australia; and
- (c) the economic prosperity and welfare of the people of Australia."

In addition to its functions as a Central Bank, the Bank controls the Australian note issue through a Note Issue Department, provides special banking facilities through the Rural Credits Department, and acts as banker to the Commonwealth and some of the States.

Prior to its reconstitution as the Reserve Bank, the Commonwealth Bank also provided general banking facilities through a General Banking Division up to the 3rd December, 1953, when that business was taken over by the Commonwealth Trading Bank, and special banking facilities through the Mortgage Bank and Industrial Finance Departments. In addition, the Board of the Commonwealth Bank was responsible for the policy and administration of the Commonwealth Trading Bank and Commonwealth Savings Bank. On 14th January, 1960, on its reconstitution as the Reserve Bank, the Mortgage Bank and Industrial Finance Departments were amalgamated to form the Commonwealth Development Bank, and that institution, together with the Commonwealth Trading Bank and the Commonwealth Savings Bank, was placed under the control of the Commonwealth Banking Corporation, an organization established under the Commonwealth Banks Act 1959 and entirely separate from the Reserve Bank.

(ii) *Management.* Under the Commonwealth Bank Act 1911, the Commonwealth Bank was managed by a Governor. From 1924 to August, 1945, it was controlled by a Board of Directors. Under the Commonwealth Bank Act 1945, control was vested in a Governor, assisted by an Advisory Council. From August, 1951, under the Commonwealth Bank Act 1951, it was controlled by a Board of Directors.

Under the provisions of the Reserve Bank Act 1959, the policy of the Reserve Bank is determined by a Board consisting of the Governor (Chairman), the Deputy Governor, the Secretary to the Treasury, and seven other members appointed by the Governor-General. The bank is managed by the Governor, who acts in accordance with the policy of the Board and with any directions of the Board. The Bank is required to inform the Government of the monetary and banking policy of the Board. In the event of a disagreement between the Government and the Board as to whether the monetary and banking policy of the Bank is directed to the greatest advantage of the people of Australia, the Governor-General, acting with the advice of the Executive Council, may determine the policy to be adopted by the Bank.

(iii) *Central Banking Business.* Under the powers it possessed under the Commonwealth Bank Act 1911-1943 and under its war-time powers under the National Security Regulations, the Commonwealth Bank gradually assumed the functions of a Central Bank. Part III. of the Commonwealth Bank Act 1945 formally constituted the Bank as a Central Bank and granted the necessary powers to carry on the business of a Central Bank, and these powers were carried through into the present Act constituting the Reserve Bank. Under the provisions of the Reserve Bank Act 1959, the capital for the Central Banking Business is the capital of the Commonwealth Bank for Central Banking purposes immediately prior to 14th January, 1960, and such other sums as are transferred from the Reserve Bank Reserve Fund. The profits of the Bank are distributed as follows: (a) such sums as the Treasurer, after consultation with the Bank, determines shall be placed to the credit of the Reserve Bank Reserve Fund and (b) the remainder shall be paid to the Commonwealth.

(iv) *Note Issue Department.* The Note Issue Department, established in 1920 when the control of the Australian note issue was transferred from the Commonwealth Treasury to the Commonwealth Bank, was maintained in the same form under the Reserve Bank Act 1959. The Reserve Bank may, through this Department, issue, re-issue and cancel Australian notes. Under the Reserve Bank Act 1959, the profits of the Note Issue Department are paid to the Commonwealth.

(v) *Rural Credits Department.* The Rural Credits Department, established in 1925 for the purpose of making short-term credit available for the orderly marketing of primary produce, was continued in the same form under the Reserve Bank Act 1959. The Reserve Bank may, through this Department, make advances upon the security of primary produce placed under the legal control of the bank, or other security associated with the production or marketing of primary produce, to co-operative associations or marketing boards formed under the laws of the Commonwealth or a State or Territory of the Commonwealth or other bodies specified by proclamation. The period of the advance shall not exceed one year. Under the provisions of the Reserve Bank Act 1959, the capital of the Rural Credits Department is the capital of the Rural Credits Department of the Commonwealth Bank immediately prior to 14th January, 1960, and £2,000,000 provided by the Reserve Bank. The profits of the Rural Credits Department are dealt with as follows: (a) one half shall be placed to the credit of the Rural Credits Department Reserve Fund and (b) one half shall be placed to the credit of the Rural Credits Development Fund.

(vi) *Liabilities and Assets—All Departments.* Liabilities and assets of each Department of the Reserve Bank at 30th June, 1960, are shown in the following table.

RESERVE BANK OF AUSTRALIA: LIABILITIES AND ASSETS, 30th JUNE, 1960.

(£'000.)

Particulars.	Central Banking Business.	Note Issue Depart- ment.	Rural Credits Depart- ment.	Total.(a)
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LIABILITIES.

Capital	4,000	..	4,714	8,714
Reserve funds	14,562	..	1,491	16,053
Special reserve—Premium on gold sold	4,755	..	4,755
Development fund .. .. .	..	..	201	201
Notes on issue .. .. .	..	419,112	..	419,112
Deposits, bills payable and other liabilities—				
Statutory reserve deposit accounts of trading banks(b)	303,125	..	..	303,125
Other deposits of trading banks	33,133	..	..	33,133
Deposits of savings banks	136,278	..	..	136,278
Deposits of overseas institutions	9,313	..	..	9,313
Other (including provision for contingencies) ..	124,616	9,683	68,742	(a) 139,468
Total	625,027	433,550	75,148	a1,070,152

ASSETS.

Gold and balances held abroad (including money at short call and treasury bills)	245,450	198,457	..	443,907
Other overseas securities	24,948	19,991	..	44,939
Australian notes and coin and cash balances ..	3,096	..	..	3,096
Australian Government securities (including treasury bills)	257,942	215,042	..	472,984
Cheques and bills of other banks	2,515	..	..	2,515
Loans, advances, bills discounted, and other assets (after deducting debts considered bad or doubtful) ..	76,801	..	75,148	(a) 88,357
Bank premises at cost less amounts written off ..	1,970	..	..	1,970
Bills receivable and remittances in transit	8,040	..	..	8,040
All other assets	4,265	60	..	(a) 4,344
Total	625,027	433,550	75,148	a1,070,152

(a) Inter-departmental accounts totalling £63,573,000 have been offset in the combined figures.
 (b) Prior to 14th January, 1960, Special Accounts of Trading Banks.

(vii) *Profits.* Net profits of the various Departments of the Reserve Bank for the years ended 30th June, 1956 to 1960 were as follows:—

RESERVE BANK OF AUSTRALIA(a): NET PROFITS.
(£'000.)

Year ended 30th June—	Central Banking Business.	Note Issue Depart- ment.	Rural Credits Depart- ment.	Mortgage Bank Depart- ment. (b)	Indus- trial Finance Depart- ment. (b)	Total.
1956	6,561	8,366	220	75	416	15,638
1957	8,741	10,053	195	95	386	19,470
1958	10,103	12,593	184	110	405	23,395
1959	4,200	10,935	227	123	512	15,997
1960	5,381	10,516	322	..	..	16,219

(a) Prior to 14th January, 1960, Commonwealth Bank of Australia, amalgamated to form Commonwealth Development Bank.

(b) On 14th January, 1960,

The distribution of these profits for the years ended 30th June, 1956 to 1960, is given in the following table:—

RESERVE BANK OF AUSTRALIA(a): DISTRIBUTION OF PROFITS.
(£'000.)

To—	1956.	1957.	1958.	1959.	1960.
National Debt Sinking Fund	3,280	4,371	5,052	2,100	..
Commonwealth of Australia ..	7,866	10,054	12,593	10,935	13,206
Commonwealth Trading Bank Capital Account	286	..	..	..	..
Reserve Bank Reserve Fund ..	2,780	4,370	5,051	2,100	2,691
Rural Credits Department— Capital Account	143	..	..	..	..
Reserve Fund	110	97	92	114	161
Development Fund	110	97	92	113	161
Mortgage Bank Depart- ment(b)— Capital Account	286	..	..	..	..
Reserve Fund	75	95	110	123	..
Industrial Finance Depart- ment(b)— Capital Account	286	..	..	..	..
Reserve Fund	416	386	405	512	..
Total	15,638	19,470	23,395	15,997	16,219

(a) Prior to 14th January, 1960, Commonwealth Bank of Australia, amalgamated to form Commonwealth Development Bank.

(b) On 14th January, 1960,

(viii) *Central Banking Business—Average Liabilities and Assets.* The average liabilities and assets of the Central Banking Business and Note Issue Department of the Reserve Bank for the years ended June, 1956 to 1960, are shown in the two tables which follow.

**RESERVE BANK OF AUSTRALIA(a): CENTRAL BANKING BUSINESS
(INCLUDING NOTE ISSUE DEPARTMENT)—AVERAGE LIABILITIES.**
(£'000.)

Year ended June—	Capital and Reserve Funds.	Australian Notes on Issue.	Statutory Reserve Deposit Accounts of Trading Banks.	Other Deposits of Trading Banks.	Other Lia- bilities.	Total Lia- bilities.
1956	14,945	374,096	272,841	35,630	208,717	906,229
1957	17,559	383,214	289,444	31,345	205,917	927,479
1958	21,618	389,544	328,337	25,602	218,393	983,494
1959	26,437	396,019	259,865	24,189	232,866	939,376
1960	25,029	413,592	280,786	19,580	246,368	985,355

(a) Prior to 14th January, 1960, Commonwealth Bank of Australia.

**RESERVE BANK OF AUSTRALIA(a): CENTRAL BANKING BUSINESS
(INCLUDING NOTE ISSUE DEPARTMENT)—AVERAGE ASSETS.
(£'000.)**

Year ended June—	Gold and Balances held Abroad.	Aus- tralian Notes and Coin.	Cheques and Bills of other Banks.	Government and other Securities (including Common- wealth Treasury Bills).	Bills Receiv- able and Remit- tances in Transit.	Loans, Advances and all Other Assets.	Total Assets.
1956	298,885	2,364	6,505	515,716	3,746	79,013	906,229
1957	349,663	1,892	5,360	508,841	3,805	57,918	927,479
1958	461,721	2,026	4,177	478,603	4,488	32,479	983,494
1959	411,509	2,182	4,094	469,064	4,707	47,820	939,376
1960	442,164	3,566	3,084	475,189	4,014	57,338	985,355

(a) Prior to 14th January, 1960, Commonwealth Bank of Australia.

(ix) *Rural Credits Department—Average Liabilities and Assets within Australia.* The following table shows the average liabilities and assets of the Rural Credits Department of the Reserve Bank within Australia for the years ended June, 1956 to 1960:—

**RESERVE BANK OF AUSTRALIA(a): RURAL CREDITS DEPARTMENT
AVERAGE LIABILITIES AND ASSETS WITHIN AUSTRALIA.
(£'000.)**

Year ended June—	Total Liabilities.	Loans, Advances, etc.	Other Assets.	Total Assets.
1956	69,052	73,751	401	74,152
1957	51,075	56,645	303	56,948
1958	27,563	33,664	278	33,942
1959	40,272	46,732	282	47,014
1960	54,542	62,605	217	62,822

(a) Prior to 14th January, 1960, Commonwealth Bank of Australia.

6. The Commonwealth Banking Corporation.—(i) *General.* The Commonwealth Banking Corporation was established under the Commonwealth Banks Act 1959 and came into being on the 14th January, 1960. The Corporation is entirely separate from the Reserve Bank and is the controlling body for the Commonwealth Trading Bank, Commonwealth Savings Bank and Commonwealth Development Bank. The general functions of the corporation are set out in Section 9 of the Commonwealth Banks Act 1959 which states:

“ It is the duty of the Board, within the limits of its powers, to ensure that the policy of the Trading Bank, of the Savings Bank and of the Development Bank are directed to the greatest advantage of the people of Australia and have due regard to the stability and balanced development of the Australian economy.”

Under the Banking Act 1959, the Corporation and its constituent banks are subject to the same central banking controls as are the private trading banks.

(ii) *Management.* The Board of the Corporation consists of the Managing Director of the Corporation, the Deputy Managing Director, the Secretary to the Treasury and eight other members appointed by the Governor-General of whom one is Chairman and another Deputy Chairman. In addition, there is an Executive Committee of the Board for each of the three separate banks. These Executive Committees are appointed by the Treasurer, after consultation with the Board, and are charged with taking such action as is necessary to ensure that effect is given by the respective banks to the policies laid down for them and to any directions given by the Board in relation to their affairs. Under the Board, the Corporation is managed by the Managing Director and the Deputy Managing Director. Each of the three constituent banks of the Corporation has its own statutory functions and responsibilities and its separate identity within the framework of the Corporation. Each bank is managed by a General Manager under the Managing Director of the Corporation.

In paras. 7 and 8 following, details are given of the assets and liabilities of the Commonwealth Development Bank and the Commonwealth Trading Bank. Details for the Commonwealth Savings Bank are shown in § 2 of this chapter, page 780.

7. *Commonwealth Development Bank of Australia.*—(i) *General.* The Commonwealth Development Bank of Australia was established by the Commonwealth Banks Act 1959 and commenced operations on 14th January, 1960. It was formed basically from an amalgamation of the Mortgage Bank and Industrial Finance Departments of the Commonwealth Bank. Under the Act, the Bank is authorized to provide assistance for the development of worthwhile enterprises in the fields of primary and secondary industries which would otherwise be unable to obtain the necessary finance on reasonable and suitable terms and conditions. The Commonwealth Development Bank is managed by a General Manager under the Managing Director of the Commonwealth Banking Corporation, and its policy is determined by the Board of that Corporation. The capital of the Development Bank consists of the capital of the Mortgage Bank and Industrial Finance Departments of the Commonwealth Bank immediately prior to 14th January, 1960, £5,000,000 provided by the Reserve Bank, and such other sums as are provided from the Commonwealth Development Bank Reserve Fund. The net profits of the Bank are paid to the Commonwealth Development Bank Reserve Fund.

(ii) *Liabilities and Assets.* The liabilities and assets of the Commonwealth Development Bank at 30th June, 1960, are shown in the following table:—

**COMMONWEALTH DEVELOPMENT BANK OF AUSTRALIA(a):
LIABILITIES AND ASSETS, 30th JUNE, 1960.
(£'000.)**

Liabilities.	1960.	Assets.	1960.
Capital	15,857	Coin, bullion, notes and cash at bankers	558
Commonwealth Development Bank reserve fund	5,262	Australian Public Securities—	
Balances due to other banks	15,758	Commonwealth and States—	
Deposits, bills payable and all other liabilities (including amounts provided for contingencies)	7,716	Treasury bills	
		Other Securities	9,639
		Other Securities	422
		Loans to authorized dealers in the short-term money market	100
		Cheques and bills of other banks and balances with and due from other banks	147
		Loans, advances and bills discounted (after deducting provisions for debts considered bad or doubtful)	33,579
		All other assets	148
Total	44,593	Total	44,593

(a) Prior to 14th January, 1960, Industrial Finance and Mortgage Bank Departments of the Commonwealth Bank of Australia.

(iii) *Average Liabilities and Assets within Australia.* The average liabilities and assets of the Commonwealth Development Bank within Australia for the year ended June, 1960, are shown in the following table:—

**COMMONWEALTH DEVELOPMENT BANK OF AUSTRALIA(a): AVERAGE
LIABILITIES AND ASSETS WITHIN AUSTRALIA.
(£'000.)**

Year ended June—	Total Liabilities.	Loans Advances, etc.		Australian Government Securities (Including Treasury Bills).	Other Assets.	Total Assets.
		Hire Purchase.	Other.			
1960	18,339	17,830	15,934	6,784	1,057	41,605

(a) Prior to 14th January, 1960, Industrial Finance and Mortgage Bank Departments of the Commonwealth Bank of Australia.

(iv) *Profits.* The net profit of the Commonwealth Development Bank for the year ended 30th June, 1960, was £582,035. The net profit was appropriated to the Commonwealth Development Bank Reserve Fund.

8. *The Commonwealth Trading Bank of Australia.*—(i) *General.* The Commonwealth Trading Bank of Australia was established by the Commonwealth Bank Act 1953 and on 3rd December, 1953, took over the business of the General Banking Division of the Commonwealth Bank. It was managed by a General Manager under the Governor of the Commonwealth Bank and its policy was determined by the Board of that Bank. Under the provisions of the Commonwealth Banks Act 1959, which came into operation on 14th January, 1960, the Commonwealth Trading Bank was maintained in the same form but was placed under the control of the Commonwealth Banking Corporation. The Commonwealth Trading Bank is managed by a General Manager under the Managing Director of the Commonwealth Banking Corporation. The capital of the Commonwealth Trading Bank is the capital of the Commonwealth Trading Bank immediately prior to 14th January, 1960, £2,000,000 provided by the Reserve Bank, and such other sums as are transferred from the Commonwealth Trading Bank Reserve Fund. Under the Act, the Bank is liable for income taxes. The net profits of the Bank, after provision for taxation, are divided as follows:—
(a) one-half shall be placed to the credit of the Commonwealth Trading Bank Reserve Fund and (b) one-half shall be paid to the Commonwealth.

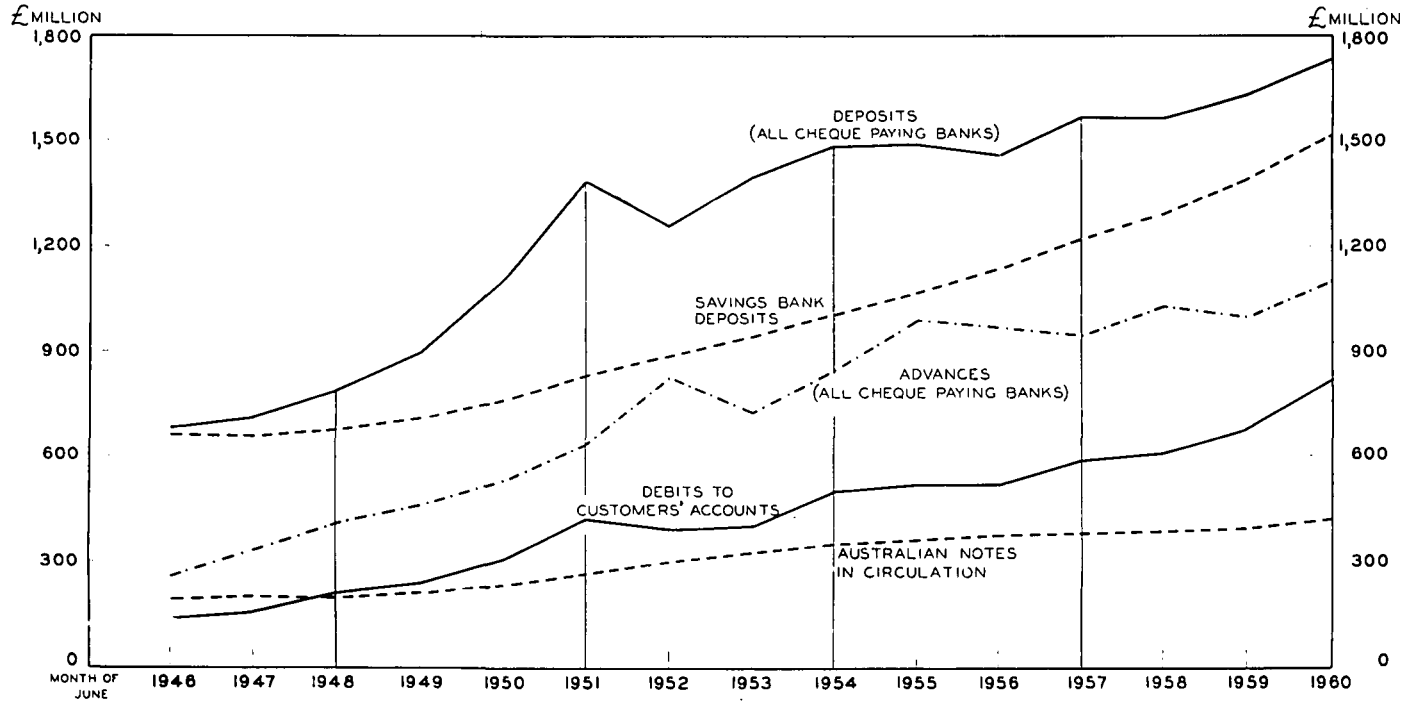
(ii) *Liabilities and Assets.* The liabilities and assets of the Commonwealth Trading Bank at 30th June, 1959 and 1960, are shown in the following table:—

COMMONWEALTH TRADING BANK OF AUSTRALIA: LIABILITIES AND ASSETS, 30th JUNE, 1959 AND 1960.
(£'000.)

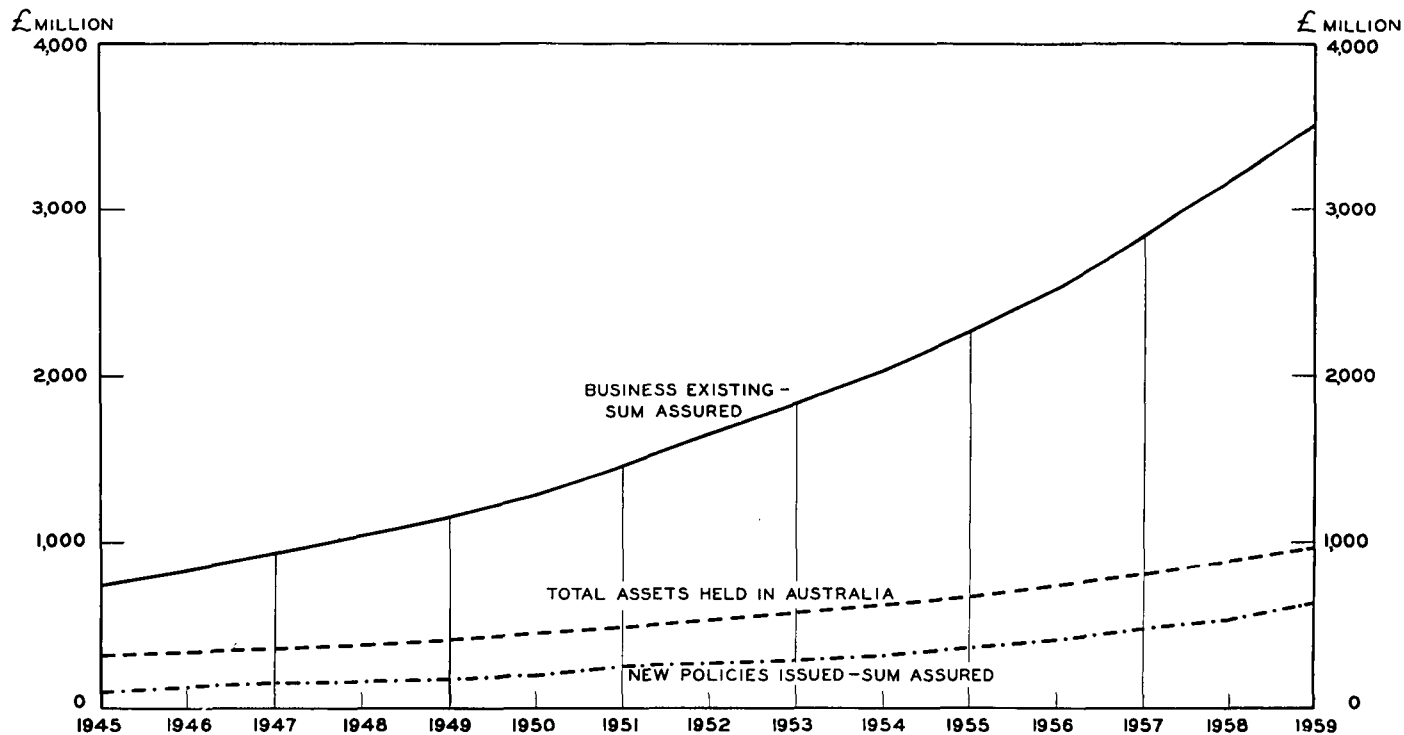
Liabilities.	1959.	1960.	Assets.	1959.	1960.
Capital	5,429	7,429	Coin, bullion, notes and cash at bankers ..	18,647	16,636
Reserve Fund ..	3,296	3,540	Money at short call overseas ..	1,500	1,625
Balances due to other banks	1,125	5,601	Australian Public Securities—		
Deposits, bills payable and other liabilities (including provision for contingencies) ..	296,946	338,255	Commonwealth and States—		
			Treasury Bills ..	3,000	2,000
			Other Securities ..	60,892	58,739
			Local and Semi-Governmental Authorities ..	1,298	1,298
			Other public securities ..		131
			Other securities ..	(a)	2,336
			Loans to authorized dealers in the short-term money market ..	1,925	1,725
			Statutory Reserve Deposit Account with Reserve Bank ..	36,150	46,573
			Cheques and bills of other banks and balances with and due from other banks ..	4,064	8,670
			Loans, advances and bills discounted (after deducting provisions for debts considered bad or doubtful) ..	129,201	146,878
			Bank premises ..	4,514	3,039
			Bills receivable and remittances in transit ..	42,009	63,635
			All other assets ..	3,596	1,540
Total	306,796	354,825	Total	306,796	354,825

(a) Included in all other assets.

BANKING : AUSTRALIA, 1946 TO 1960



LIFE ASSURANCE: AUSTRALIA 1945 TO 1959



(iii) *Average Liabilities and Assets within Australia.* The average liabilities and assets of the Commonwealth Trading Bank within Australia for the years ended June, 1956 to 1960, are shown in the following tables.

COMMONWEALTH TRADING BANK OF AUSTRALIA—AVERAGE LIABILITIES WITHIN AUSTRALIA.(a)
(£'000.)

Year ended June—	Deposits.			Balances due to other Banks.	Bills payable and all other Liabilities to the Public.	Total Liabilities.
	Not Bearing Interest.	Bearing Interest.	Total.			
1956	135,617	46,243	181,860	314	17,496	199,670
1957	140,125	44,423	184,548	389	18,160	203,097
1958	150,220	54,837	205,057	422	19,523	225,002
1959	159,071	67,705	226,776	417	21,623	248,816
1960	181,055	73,382	254,437	743	14,461	269,641

(a) Includes Territories of Papua and New Guinea.

COMMONWEALTH TRADING BANK OF AUSTRALIA—AVERAGE ASSETS WITHIN AUSTRALIA.(a)
(£'000.)

Year ended June—	Cash and Cash Balances.	Balances with Other Banks. (b)	Commonwealth and State Government Securities.		Other Securities.	Loans to Authorized Dealers in Short-Term Money Market.	Statutory Reserve Deposit Account with Reserve Bank. (c)	Loans, (d) Advances, and Bills Discounted.	All Other Assets. (e)	Total Assets.
			Treasury Bills and Seasonal Securities.	Other.						
1956	10,213	1,238	6,333	38,599	1,824	..	33,155	103,894	6,815	202,071
1957	9,988	1,469	4,059	35,714	2,654	..	34,603	106,480	7,305	202,272
1958	10,829	1,596	5,500	46,476	2,511	..	40,193	107,815	8,396	223,316
1959	11,307	1,590	4,137	56,677	2,416	1,388	36,450	122,499	9,161	245,625
1960	11,719	3,606	3,043	60,189	2,355	2,556	41,429	133,735	9,211	267,843

(a) Includes Territories of Papua and New Guinea. (b) Includes notes, cheques and bills of other banks. (c) Prior to 14th January, 1960, Special Account with Commonwealth Bank. (d) Excludes loans to authorized dealers in short-term Money Market. (e) Includes local and semi-governmental securities.

(iv) *Profits.* The net profits (after writing off bank premises, £165,790 in 1959 and £113,140 in 1960) of the Commonwealth Trading Bank for the years ended 30th June, 1959 and 1960, were £600,668 and £487,854 respectively. These net profits were distributed one half to the National Debt Sinking Fund and one half to the Commonwealth Trading Bank Reserve Fund.

9. *Private Trading Banks—Average Liabilities and Assets in Australia.*—The average liabilities and assets within Australia of the Private Trading Banks (see p. 756 for list of banks) for the years ended June, 1956 to 1960, are shown in the following tables:—

PRIVATE TRADING BANKS: AVERAGE LIABILITIES WITHIN AUSTRALIA.(a)
(£'000.)

Year ended June—	Deposits.			Balances due to other Banks.	Bills payable and all other Liabilities to the Public.	Total Liabilities.
	Not Bearing Interest.	Bearing Interest.	Total.			
1956	1,032,332	263,107	1,295,439	6,528	17,077	1,319,044
1957	1,028,509	299,499	1,328,008	7,343	18,849	1,354,200
1958	1,045,881	345,415	1,391,296	5,561	18,668	1,415,525
1959	1,007,798	368,514	1,376,312	4,121	20,658	1,401,091
1960	1,067,592	385,554	1,453,146	4,804	24,008	1,481,958

(a) Includes Territories of Papua and New Guinea.

PRIVATE TRADING BANKS: AVERAGE ASSETS WITHIN AUSTRALIA.(a)
(£'000.)

Year ended June—	Cash and Cash Balances.	Balances with Other Banks. (b)	Commonwealth and State Government Securities.		Other Securities.	Loans to Authorized Dealers in Short-Term Money Market.	Statutory Reserve Deposit Account with Reserve Bank. (c)	Loans (d), Advances and Bills Dis-counted.	All Other Assets. (e)	Total Assets.
			Trea-sury Bills and Seasonal Securities	Other.						
1956 ..	66,883	19,672	50,015	113,121	5,839	..	238,803	804,392	56,898	1,355,623
1957 ..	63,661	20,239	51,162	151,298	7,201	..	254,052	762,638	59,108	1,369,359
1958 ..	59,805	18,254	39,027	176,152	12,415	..	287,399	774,302	63,663	1,431,017
1959 ..	58,263	18,794	38,309	193,546	15,702	6,613	222,809	807,028	66,257	1,427,321
1960 ..	57,730	23,196	24,408	236,890	16,483	21,757	238,774	818,308	69,064	1,506,610

(a) Includes Territories of Papua and New Guinea. (b) Includes notes, cheques and bills of other banks. (c) Prior to 14th January, 1960, special account with Commonwealth Bank. (d) Excludes loans to authorized dealers in short-term money market. (e) Includes local and semi-governmental securities.

10. Other Cheque-paying Banks—Average Liabilities and Assets within Australia.—The average liabilities and assets within Australia of "Other Cheque-paying Banks" (see p. 756 for list of these banks) for the years ended June, 1956 to 1960, are shown in the following tables:—

OTHER CHEQUE-PAYING BANKS: AVERAGE LIABILITIES WITHIN AUSTRALIA.
(£'000.)

Year ended June—	Deposits.			Balances due to other Banks.	Bills Payable and all other Liabilities to the Public. (a)	Total Liabilities.
	Not Bearing Interest.	Bearing Interest.	Total.			
1956 ..	39,726	16,359	56,085	1,536	21,053	78,674
1957 ..	41,317	16,946	58,263	1,372	21,058	80,693
1958 ..	42,013	20,311	62,324	1,384	21,514	85,222
1959 ..	40,189	24,694	64,883	1,055	22,962	88,900
1960 ..	44,901	27,969	72,870	921	23,838	97,629

(a) Includes inscribed stock and debentures, Rural Bank of New South Wales and State Bank of South Australia.

OTHER CHEQUE-PAYING BANKS: AVERAGE ASSETS WITHIN AUSTRALIA.
(£'000.)

Year ended June—	Cash and Cash Balances.	Balances with Other Banks. (a)	Commonwealth and State Government Securities.		Other Securities.	Loans to Authorized Dealers in Short-Term Money Market.	Statutory Reserve Deposit Account with Reserve Bank. (b)	Loans, (c) Advances and Bills Dis-counted.	All Other Assets. (d)(e)	Total Assets.
			Trea-sury Bills and Seasonal Securities	Other.						
1956 ..	3,992	1,588	4,119	13,816	245	..	883	75,825	5,904	106,372
1957 ..	3,857	2,267	3,906	15,068	288	..	788	77,697	6,136	110,007
1958 ..	3,804	2,512	4,145	14,532	748	..	745	81,149	6,727	114,362
1959 ..	3,615	2,920	824	14,400	3,588	1,223	606	85,819	7,417	120,412
1960 ..	2,970	2,380	858	16,952	3,570	6,375	584	88,546	7,968	130,203

(a) Includes notes, cheques and bills of other banks. (b) Prior to 14th January, 1960, special account with Commonwealth Bank. (c) Excludes loans to authorized dealers in short-term money market. (d) Includes local and semi-governmental securities. (e) Includes The Rural and Industries Bank of Western Australia and State Bank of South Australia accounts with State Treasuries.

11. All Cheque-paying Banks.—(i) *Average Liabilities and Assets within Australia.* Particulars of the average liabilities and assets within Australia of all cheque-paying banks in Australia (see p. 756 for list of banks) for the years ended 30th June, 1956 to 1960, are shown in the following tables.

ALL CHEQUE-PAYING BANKS: AVERAGE LIABILITIES WITHIN AUSTRALIA.(a)
(£'000.)

Year ended June—	Deposits.			Balances Due to Other Banks.	Bills Payable and all Liabilities to the Public.	Total Liabilities.
	Not Bearing Interest.	Bearing Interest.	Total.			
1956	1,207,675	325,709	1,533,384	8,378	55,626	1,597,388
1957	1,209,951	360,868	1,570,819	9,104	58,067	1,637,990
1958	1,238,114	420,563	1,658,677	7,367	59,705	1,725,749
1959	1,207,058	460,913	1,667,971	5,593	65,243	1,738,807
1960	1,293,548	486,905	1,780,453	6,468	62,307	1,849,228

(a) Includes Territories of Papua and New Guinea.

ALL CHEQUE-PAYING BANKS: AVERAGE ASSETS WITHIN AUSTRALIA.(a)
(£'000.)

Year ended June—	Cash and Cash Balances.	Balances with Other Banks.	Commonwealth and State Government Securities.		Other Securities.	Loans to Authorized Dealers in Short-Term Money Market.	Statutory Reserve Deposit Account with Reserve Bank.(b)	Loans,(c) Advances and Bills Discounted.	All Other Assets. (d)	Total Assets.
			Treasury Bills and Seasonal Securities.	Other.						
1956 ..	81,088	22,498	60,467	165,536	7,908	..	272,841	984,111	69,617	1,664,066
1957 ..	77,506	23,975	59,127	202,080	10,143	..	289,444	946,815	72,548	1,681,638
1958 ..	74,438	22,362	48,672	237,160	15,674	..	328,337	963,266	78,786	1,768,695
1959 ..	73,185	23,304	43,270	264,623	21,706	9,224	259,865	1,015,346	82,835	1,793,358
1960 ..	72,420	29,181	28,308	314,031	22,409	30,688	280,787	1,040,589	86,243	1,904,656

(a) Includes Territories of Papua and New Guinea. (b) Prior to 14th January, 1960, special account with Commonwealth Bank. (c) Excludes loans to authorized dealers in short-term money market. (d) Includes Local and Semi-Governmental securities.

(ii) *Ratios of Assets and Liabilities to Total Deposits.* The following table shows, for all cheque-paying banks, the ratios of selected assets and liabilities to total deposits for the years ended June, 1956 to 1960. The ratios are based on the average liabilities and assets for the years shown.

ALL CHEQUE-PAYING BANKS: RATIOS OF SELECTED AVERAGE ASSETS AND LIABILITIES TO AVERAGE TOTAL DEPOSITS.(a)
(Per cent.)

Year ended June—	Cash and Cash Balances.(b)	Commonwealth and State Government Securities.		Statutory Reserve Deposit Account with Reserve Bank.	Loans, Advances and Bills Discounted. (c)	Deposits not Bearing Interest.
		Treasury Bills and Seasonal Securities.	Other.			
1956	5.3	3.9	10.8	17.8	64.2	78.8
1957	4.9	3.8	12.9	18.4	60.3	77.0
1958	4.5	2.9	14.3	19.8	58.1	74.6
1959	4.4	2.6	15.9	15.6	60.9	72.4
1960	4.1	1.6	17.6	15.8	58.5	72.7

(a) Based on deposits and assets within Australia and excludes London Funds. (b) Coin, bullion, Australian notes and cash with Reserve Bank on current account. (c) Excludes loans to authorized dealers in short-term money market.

(iii) *Proportion of Non-Interest Bearing to Total Deposits.* The following table shows for each State, the proportion of non-interest bearing deposits to total deposits with all cheque-paying banks for each of the years ended June, 1956 to 1960. The ratios are based on the average deposits for the years shown.

ALL CHEQUE-PAYING BANKS: PROPORTION OF NON-INTEREST BEARING DEPOSITS TO TOTAL DEPOSITS.

(Per cent.)

Year ended June—	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust- ralia.(a)
1956	80.0	78.1	79.2	71.8	81.4	81.2	84.3	81.1	78.8
1957	78.1	76.7	77.9	70.1	77.3	81.1	81.1	79.4	77.0
1958	75.4	74.5	76.2	67.8	74.9	78.4	79.3	76.7	74.6
1959	73.0	72.1	74.2	65.4	72.5	75.8	78.7	77.6	72.4
1960	73.0	72.4	74.5	66.6	73.3	76.7	78.3	78.2	72.7

(a) Includes Territories of Papua and New Guinea.

(iv) *Ratio of Advances to Total Deposits.* The ratio of advances to total deposits for each State for the years ended June, 1956 to 1960, is shown in the following table. The ratios are based on the averages of deposits and advances for the years shown.

ALL CHEQUE-PAYING BANKS: RATIO OF ADVANCES TO TOTAL DEPOSITS.

(Per cent.)

Year ended June—	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust- ralia.(a)
1956	71.9	51.7	68.0	44.5	81.7	65.0	49.2	33.5	64.2
1957	68.5	51.7	62.9	42.2	72.8	60.0	40.2	32.3	60.3
1958	64.9	49.8	60.3	42.5	75.7	59.7	36.8	32.3	58.1
1959	67.7	50.9	65.3	47.5	81.6	61.8	41.0	30.5	60.9
1960	64.3	49.1	62.6	50.4	74.0	60.1	39.5	33.0	58.5

(a) Includes Territories of Papua and New Guinea.

12. *Commonwealth and Private Trading Banks (Major Trading Banks).—(i) Selected Average Assets and Liabilities within Australia.* In the following tables, particulars of selected average assets and liabilities of the Commonwealth and Private Trading Banks are shown for each of the years ended June, 1956 to 1960.

**COMMONWEALTH AND PRIVATE TRADING BANKS (MAJOR TRADING BANKS):
SELECTED AVERAGE ASSETS AND LIABILITIES WITHIN AUSTRALIA.(a)**

(£'000.)

Year ended June—	Cash and Cash Balances.	Commonwealth and State Government Securities.		Statutory Reserve Deposit Account with Reserve Bank.	Advances.	Total Deposits.	
		Treasury Bills and Seasonal Securities.	Other.			Not Bearing Interest.	Bearing Interest.
1956	77,096	56,348	151,720	271,958	908,286	1,167,949	309,350
1957	73,649	55,221	187,012	288,655	869,118	1,168,634	343,922
1958	70,634	44,527	222,628	327,592	882,117	1,196,101	400,252
1959	69,570	42,446	250,223	259,259	929,527	1,166,869	436,219
1960	69,537	27,485	296,946	280,007	952,003	1,248,330	459,253

(a) Includes Territories of Papua and New Guinea.

(ii) *Ratios of Selected Assets within Australia to Total Deposits.* In the table below, ratios of selected assets to total deposits are given for each of the years ended June, 1956 to 1960.

COMMONWEALTH AND PRIVATE TRADING BANKS (MAJOR TRADING BANKS):
RATIOS OF SELECTED ASSETS WITHIN AUSTRALIA^(a) TO TOTAL DEPOSITS.^(b)

(Per cent.)

Year ended June—	Cash and Cash Balances. (c)	Commonwealth and State Government Securities.		Statutory Reserve Deposit Account with Reserve Bank.	Advances.	Total Deposits.	
		Treasury Bills and Seasonal Securities.	Other.			Not Bearing Interest.	Bearing Interest.
1956	5.2	3.8	10.3	18.4	61.5	79.1	20.9
1957	4.9	3.6	12.4	19.1	57.5	77.3	22.7
1958	4.4	2.8	14.0	20.5	55.3	74.9	25.1
1959	4.3	2.7	15.6	16.2	58.0	72.8	27.2
1960	4.1	1.6	17.4	16.4	55.8	73.1	26.9

(a) Includes Territories of Papua and New Guinea. (b) Based on averages of assets and liabilities for the years shown. (c) Coin, bullion, notes and cash with Reserve Bank on current account.

13. Classification of Advances within Australia—Commonwealth Trading Bank of Australia and Private Trading Banks (Major Trading Banks).—(i) *States, June, 1960.* A classification of bank advances of the Commonwealth and Private Trading Banks outstanding at the end of June, 1960, is shown in the following table.

Resident borrowers cover institutions (including branches of oversea institutions) engaged in business in Australia and persons permanently residing in Australia. Non-resident borrowers cover all other persons and institutions incorporated abroad, which, though represented, do not carry on business in Australia. Advances to resident borrowers have been classified as business advances, advances to public authorities, personal advances and advances to non-profit organizations. Business advances have been further classified to the main industry of the borrower and include advances to partnerships, companies and other institutions engaged in business in Australia, advances to persons actively engaged in business on their own behalf if the advance is mainly for business purposes, advances to mutual, co-operative and benefit societies which distribute their profits or surpluses (if any) to members by way of dividends, rebates on charges for goods and services, or increased benefits. Advances to public authorities cover advances to local and semi-governmental authorities including separately constituted government business undertakings but not the Commonwealth or State Governments. Personal advances cover advances to persons for purposes other than carrying on a business. Advances to non-profit organizations cover advances to organizations which are not carried on for the purpose of making a profit or gain to individual members, any income of the organization being used for the purposes of the organization or for the benefit of the community.

Commencing with the June, 1957, survey, the classification used in previous surveys was revised, and, because of changes in definition and regrouping of some classes, a complete review of the classification of all accounts was necessary. The main changes made in the classification were (a) the provision of separate classes for advances to non-residents and non-profit organizations and (b) changes in the definition of and grouping of several industrial classes. The main changes under (b) were:—

Manufacturing. This class now includes motor repairs, previously included in the class, Transport, Storage and Communication.

Finance. This class was previously Finance and Property. The previous sub-class (i), Builders and Contractors, has been transferred to a new class 6, Building and Construction. The sub-class (ii), Building Investment Companies and Housing Societies, has been restricted to Building and Housing Societies (Building Investment Companies are included in class 7, Other Businesses) and the sub-class (iii), Other (Banking and Insurance, etc.), has been restricted to financial institutions only. Business services (e.g., Stock Brokers, Estate Agencies, etc.), previously included in this sub-class, have been transferred to class 7, Other Businesses. Holding companies, also previously included, are now classified to the main industry of their subsidiary companies.

Commerce. The sub-class Retail Trade now includes motor garages and service stations, previously included in the class Transport, Storage and Communication.

These revisions should be noted when comparing the figures for June, 1957, and subsequent periods with those for earlier periods.

COMMONWEALTH TRADING BANK OF AUSTRALIA AND PRIVATE TRADING BANKS (MAJOR TRADING BANKS): CLASSIFICATION OF ADVANCES WITHIN AUSTRALIA(a)—STATES, AT END OF(b) JUNE, 1960.
(£'000.)

Classification.	N.S.W. (c)	Vic.	Q'land. (a)	S. Aust. (d)	W. Aust.	Tas.	Australia. (a)	Proportion of Total (Per cent.)
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Resident Borrowers.

A. BUSINESS ADVANCES CLASSIFIED ACCORDING TO MAIN INDUSTRY OF BORROWER.

1. Agriculture, Dairying and Grazing ..	92,881	44,342	59,384	16,220	19,134	4,821	236,782	22.5
2. Manufacturing ..	81,391	86,505	25,619	9,842	6,263	3,654	213,274	20.2
3. Transport, Storage and Communication ..	5,005	4,805	2,555	2,863	888	407	16,523	1.6
4. Finance—								
(i) Building and Housing Societies ..	11,552	11,407	706	286	246	655	24,852	2.4
(ii) Other ..	16,874	15,018	2,838	2,633	2,405	374	40,142	3.8
Total Class 4 ..	28,426	26,425	3,544	2,919	2,651	1,029	64,994	6.2
5. Commerce—								
(i) Retail Trade ..	40,492	31,523	16,268	9,083	7,743	3,873	108,982	10.4
(ii) Wholesale Trade(e) ..	51,037	31,033	5,333	7,380	4,976	2,762	102,521	9.7
Total Class 5 ..	91,529	62,556	21,601	16,463	12,719	6,635	211,503	20.1
6. Building and Construction ..	12,095	8,981	3,857	1,669	1,696	985	29,283	2.7
7. Other Businesses ..	28,171	20,338	14,879	4,224	5,186	1,854	74,652	7.1
8. Unclassified ..	1,731	2,158	480	213	231	313	5,126	0.5
Companies(f) ..	196,100	162,594	42,345	29,244	16,581	9,644	456,508	43.3
Other(f) ..	145,129	93,516	89,574	25,169	32,187	10,054	395,629	37.6
Total ..	341,229	256,110	131,919	54,413	48,768	19,698	852,137	80.9

B. ADVANCES TO PUBLIC AUTHORITIES.

<i>Public Authorities (including Local Government and Semi-Governmental Bodies)</i> ..	7,709	2,991	1,123	268	563	110	12,764	1.2
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C. PERSONAL ADVANCES CLASSIFIED ACCORDING TO MAIN PURPOSE OF ADVANCE.

1. Building or purchasing own home (Individuals) ..	45,416	23,743	14,021	5,361	7,650	1,744	97,935	9.3
2. All other (including Personal Loans) ..	31,135	20,658	9,646	4,010	4,972	1,790	72,211	6.9
Total ..	76,551	44,401	23,667	9,371	12,622	3,534	170,146	16.2

D. ADVANCES TO NON-PROFIT ORGANIZATIONS.

<i>Total</i> ..	7,871	4,481	3,465	741	1,472	477	18,507	1.7
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TOTAL ADVANCES TO RESIDENT BORROWERS.

<i>Total</i> ..	433,360	307,983	160,174	64,793	63,425	23,819	1,053,554	100.0
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Non-Resident Borrowers.

ADVANCES TO NON-RESIDENT BORROWERS.

<i>Total</i> ..	124	67	16	14	16	2	239	..
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Total Advances to Resident and Non-Resident Borrowers.

<i>Grand Total</i> ..	433,484	308,050	160,190	64,807	63,441	23,821	1,053,793	100.0
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(a) Includes Territories of Papua and New Guinea. (b) "At end of" is used for convenience. Information for individual banks or groups of banks relates to various dates around the end of the period shown. (c) Includes Australian Capital Territory. (d) Includes Northern Territory. (e) Includes temporary advances to woolbuyers. (f) The combined advances for these two groups are distributed over the above industries.

(ii) *Australia, June, 1957, to June, 1960.* The following table provides a classification of advances within Australia (including Territories of Papua and New Guinea) as at the end of June, 1957 to 1960.

COMMONWEALTH TRADING BANK OF AUSTRALIA AND PRIVATE TRADING BANKS (MAJOR TRADING BANKS): CLASSIFICATION OF ADVANCES WITHIN AUSTRALIA(a): AMOUNT AND PROPORTION OF EACH CLASS TO TOTAL.

Classification.	At End of(b) June—							
	1957.		1958.		1959.		1960.	
	Amount (£'000.)	Per cent.	Amount (£'000.)	Per cent.	Amount (£'000.)	Per cent.	Amount (£'000.)	Per cent.

Resident Borrowers.

A. BUSINESS ADVANCES CLASSIFIED ACCORDING TO MAIN INDUSTRY OF BORROWER.

1. Agriculture, Dairying and Grazing ..	200,028	22.7	230,976	24.0	229,598	24.6	236,782	22.5
2. Manufacturing ..	182,895	20.7	184,580	19.2	180,612	19.3	213,274	20.2
3. Transport, Storage and Communication ..	12,399	1.4	14,646	1.5	15,169	1.6	16,523	1.6
4. Finance—								
(i) Building and Housing Societies ..	25,360	2.9	26,502	2.8	24,500	2.6	24,852	2.4
(ii) Other ..	27,172	3.1	40,582	4.2	24,970	2.7	40,142	3.8
Total Class 4 ..	52,532	6.0	67,084	7.0	49,470	5.3	64,994	6.2
5. Commerce—								
(i) Retail Trade ..	87,522	9.9	99,600	10.3	92,614	10.0	108,982	10.4
(ii) Wholesale Trade(c) ..	99,939	11.3	102,670	10.7	89,867	9.6	102,521	9.7
Total Class 5 ..	187,461	21.2	202,270	21.0	182,481	19.6	211,503	20.1
6. Building and Construction ..	20,665	2.3	25,109	2.6	27,434	2.9	29,283	2.7
7. Other Businesses ..	55,261	6.3	60,229	6.3	64,191	6.9	74,652	7.1
8. Unclassified ..	4,413	0.5	4,602	0.5	5,195	0.6	5,126	0.5
Companies (d) ..	362,363	41.1	411,404	42.8	373,436	40.0	456,308	43.3
Other (d) ..	353,291	40.0	378,092	39.3	380,714	40.8	395,629	37.6
Total ..	715,654	81.1	789,496	82.1	754,150	80.8	852,137	80.9

B. ADVANCES TO PUBLIC AUTHORITIES.

Public Authorities (incl. Local Government and Semi-Governmental Bodies) ..	16,578	1.9	12,361	1.3	11,311	1.2	12,764	1.2
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C. PERSONAL ADVANCES CLASSIFIED ACCORDING TO MAIN PURPOSE OF ADVANCE.

1. Building or purchasing own home (Individuals) ..	86,822	9.9	89,155	9.2	91,471	9.8	97,935	9.3
2. All other (including Personal Loans) ..	49,704	5.6	55,622	5.8	59,711	6.4	72,211	6.9
Total ..	136,526	15.5	144,777	15.0	151,182	16.2	170,146	16.2

D. ADVANCES TO NON-PROFIT ORGANIZATIONS.

Total ..	13,424	1.5	15,407	1.6	16,387	1.8	18,507	1.7
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TOTAL ADVANCES TO RESIDENT BORROWERS.

Total ..	882,182	100.0	962,041	100.0	933,030	100.0	1,053,554	100.0
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Non-Resident Borrowers.

ADVANCES TO NON-RESIDENT BORROWERS.

Total ..	176	..	195	..	227	..	239	..
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Total Advances to Resident and Non-Resident Borrowers.

Grand Total ..	882,358	100.0	962,236	100.0	933,257	100.0	1,053,793	100.0
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(a) Includes Territories of Papua and New Guinea. (b) "At end of" is used for convenience. Information for individual banks or groups of banks relates to various dates around the end of the period shown. (c) Includes temporary advances to wool-buyers. (d) The combined advances for these two groups are distributed over the above industries.

14. Classification of Bank Deposits within Australia—Commonwealth Trading Bank of Australia and Private Trading Banks (Major Trading Banks).—A classification of bank deposits (excluding deposits of Commonwealth and State Governments) held by the Commonwealth and Private Trading Banks at the end of June, 1957 to 1960, is given in the following table. The classification is similar to that used for advances (for details see page 771).

COMMONWEALTH TRADING BANK OF AUSTRALIA AND PRIVATE TRADING BANKS (MAJOR TRADING BANKS): CLASSIFICATION OF DEPOSITS(a) WITHIN AUSTRALIA(b); AMOUNT AND PROPORTION OF EACH CLASS TO TOTAL.

Classification.	At end of (c) June—							
	1957		1958.		1959.		1960.	
	Amount £(mill.)	Per cent.	Amount £(mill.)	Per cent.	Amount £(mill.)	Per cent.	Amount £(mill.)	Per cent.
<i>Resident Depositors—</i>								
Business Deposits classified according to main Industry of Depositor—								
Agriculture, Grazing, Dairying ..	375.2	24.8	335.0	22.2	335.2	21.2	344.3	20.8
Manufacturing ..	120.8	8.0	130.5	8.6	142.4	9.0	147.7	8.9
Transport, Storage and Communication ..	30.8	2.0	31.4	2.1	31.7	2.0	32.2	2.0
Finance ..	132.0	8.7	125.5	8.3	134.3	8.5	130.3	7.9
Commerce ..	159.1	10.5	146.6	9.7	161.5	10.2	160.7	9.7
Building and Construction ..	41.6	2.7	40.7	2.7	42.5	2.7	45.5	2.7
Other Businesses ..	159.0	10.5	163.9	10.8	177.1	11.2	197.8	11.9
Unclassified ..	12.4	0.8	10.0	0.7	11.0	0.7	13.7	0.8
<i>Total Business Deposits—</i>								
Companies(d) ..	328.8	21.7	320.9	21.2	367.3	23.2	383.7	23.2
Other(d) ..	702.1	46.3	662.7	43.9	668.4	42.3	688.5	41.5
<i>Total ..</i>	<i>1,030.9</i>	<i>68.0</i>	<i>983.6</i>	<i>65.1</i>	<i>1,035.7</i>	<i>65.5</i>	<i>1,072.2</i>	<i>64.7</i>
<i>Deposits of Public Authorities ..</i>	<i>53.1</i>	<i>3.5</i>	<i>65.3</i>	<i>4.3</i>	<i>73.4</i>	<i>4.6</i>	<i>74.6</i>	<i>4.5</i>
<i>Personal Deposits ..</i>	<i>385.6</i>	<i>25.4</i>	<i>412.9</i>	<i>27.3</i>	<i>419.6</i>	<i>26.5</i>	<i>450.9</i>	<i>27.2</i>
<i>Deposits of Non-profit Organizations ..</i>	<i>34.9</i>	<i>2.3</i>	<i>39.4</i>	<i>2.6</i>	<i>43.3</i>	<i>2.7</i>	<i>48.6</i>	<i>2.9</i>
<i>Total Resident Depositors</i>	<i>1,504.5</i>	<i>99.2</i>	<i>1,501.2</i>	<i>99.3</i>	<i>1,572.0</i>	<i>99.3</i>	<i>1,646.3</i>	<i>99.3</i>
<i>Non-resident Depositors ..</i>	<i>11.3</i>	<i>0.8</i>	<i>9.9</i>	<i>0.7</i>	<i>10.0</i>	<i>0.7</i>	<i>10.9</i>	<i>0.7</i>
<i>Total—All Depositors</i>	<i>1,515.8</i>	<i>100.0</i>	<i>1,511.1</i>	<i>100.0</i>	<i>1,582.0</i>	<i>100.0</i>	<i>1,657.2</i>	<i>100.0</i>

(a) Excludes deposits of Commonwealth and State Governments. (b) Includes Territories of Papua and New Guinea. (c) "At end of" is used for convenience. Information for individual banks or groups of banks relates to various dates around the end of the period shown. (d) The combined deposits of these two groups are distributed over the above industries.

15. Interest on Deposits: Rates—Cheque-paying Banks.—Particulars of interest rates for fixed deposits since 1952 are shown hereunder.

BANK FIXED DEPOSIT RATES: AUSTRALIA.

(Per cent. per annum.)

Date from which Operative.	Deposits for—			
	Three Months.	Six Months.	Twelve Months.	Twenty-four Months.
29th July, 1952	1	1½	1½	(a) 1½
1st January, 1955	1½	1½	1½	2
15th March, 1956	2½	2½	2½	3
4th December, 1956	2½	2½	2½	3½
17th November, 1960	4(b)		4½	(c)

(a) On first £10,000; rate on amounts in excess of £10,000 was 1½ per cent. (b) Three months but less than twelve months. (c) The maximum period for fixed deposits is 12 months.

16. **Clearing House Returns—Average Weekly Clearings.**—The average weekly clearings in each capital city for the years ended June, 1956 to 1960, are shown in the following table.

BANK CLEARINGS(a): AVERAGE WEEKLY CLEARINGS.

(£'000.)

Year ended June—	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.	Total.
1956 ..	109,975	101,153	22,488	21,021	14,089	3,962	272,688
1957 ..	119,381	107,563	25,571	23,042	14,927	4,237	294,721
1958 ..	124,172	114,854	25,835	24,099	15,598	4,427	308,985
1959 ..	135,387	128,870	27,227	25,299	15,786	4,893	337,462
1960 ..	167,858	156,625	34,202	30,461	19,579	6,062	414,787

(a) Excludes transactions connected with the issue and redemption of Treasury Bills.

17. **Debits to Customers' Accounts—Cheque-paying Banks.**—Statistics of debits to customers' accounts have been collected since September, 1945. Generally they represent the total of all cheques drawn by the customers of the banks. In the following table, the average weekly debits to customers' accounts of all cheque-paying banks (including the Rural Credits Department of the Reserve Bank and the Commonwealth Development Bank) are shown for each State for the years ended June, 1956 to 1960. In this table, debits to accounts of Australian Governments in capital cities are excluded, as they are subject to abnormal influences and are not uniform for each State.

ALL CHEQUE-PAYING BANKS: AVERAGE WEEKLY DEBITS TO CUSTOMERS' ACCOUNTS.

(Excluding Debits to Australian Government Accounts in Capital Cities.)

(£'000.)

Year ended June—	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Total.
1956 ..	200,852	185,369	56,028	39,564	26,961	11,615	557	1,025	521,971
1957 ..	219,368	195,455	62,743	42,685	28,571	12,609	633	1,229	563,293
1958 ..	230,335	207,059	65,655	44,276	30,215	12,930	724	1,533	592,727
1959 ..	248,904	224,729	70,253	46,180	30,731	13,830	799	1,979	637,405
1960 ..	296,295	264,561	79,172	53,374	34,852	15,483	942	2,678	747,357

18. **Rates of Exchange.**—(i) *Oversea Exchange Rates.* In the following table, the par of exchange (based on par values agreed with the International Monetary Fund) and average telegraphic transfer selling rates of exchange for Sydney on a number of oversea countries are shown. Generally, the averages, which are averages of daily quotations, are based on rates quoted by the Commonwealth Trading Bank, but where these were not available rates issued by the Department of Customs and Excise have been used.

**OVERSEA EXCHANGE RATES: PAR OF EXCHANGE AND AVERAGE TELEGRAPHIC
TRANSFER SELLING RATES FOR SYDNEY ON OVERSEA COUNTRIES.**

Country.	Basis of Quotation.	Par of Ex- change.(a)	Selling Rate 1959-60.	Country.	Basis of Quotation.	Par of Ex- change.(a)	Selling Rate 1959-60.
Belgium ..	Francs to £A.1 ..	112.000	110.860	Japan ..	Yen to £A.1 ..	806.400	798.950
Canada ..	Dollars to £A.1 ..	(b)	2.137	Netherlands ..	Guilders to £A.1 ..	8.512	8.391
Ceylon ..	Pence A. to Rupee ..	22.500	22.797	New Zealand ..	£A. to £NZ.100 ..	(c)	124.538
Denmark ..	Kroner to £A.1 ..	15.472	15.320	Norway ..	Kroner to £A.1 ..	16.000	15.850
Egypt ..	Piastres to £A.1 ..	78.006	77.490	Pakistan ..	Pence A. to Rupee ..	22.500	22.719
Fiji ..	£A. to £F.100 ..	112.613	113.000	Portugal ..	Escudos to £A.1 ..	(c)	63.890
Finland ..	Markka to £A.1 ..	716.800	710.800	Singapore ..	Pence A. to Dollar ..	35.000	35.428
France ..	New Francs to £A.1 ..	11.059	10.916	South Africa, Union of ..	£A. to £SA.100 ..	125.500	125.788
French Oceania	Francs to £A.1 ..	(b)	196.000	Sweden ..	Kronor to £A.1 ..	11.588	11.501
Germany, Fed.	Deutschmarks to ..			Switzerland ..	Francs to £A.1 ..	(c)	9.637
Rep. of ..	£A.1 ..	9.408	9.281	United Kingdom	£A. to £Eng.100	125.500	125.500
Hong Kong ..	Pence A. to Dollar ..	18.750	18.883	United States of America ..	Dollars to £A.1 ..	2.240	2.233
India ..	Pence A. to Rupee ..	22.500	22.719	U.S.S.R. ..	Roubles to £A.1 ..	(c)	8.927
Indonesia ..	Rupiahs to £A.1 ..	(c)	90.980				
Italy ..	Lira to £A.1 ..	(b)	1,379.000				

(a) As at 30th June, 1960, established under International Monetary Fund Agreement.
established.

(b) No par value

(c) Not a member of International Monetary Fund.

(ii) *Interstate Exchange Rates.* Exchange rates between the capital cities and towns of each of the States and other States or parts thereof at 30th June, 1960, are shown below. Rates varied from 2s. per £100 between the nearer locations to 10s. per £100 between those more widely separated.

INTERSTATE BANK EXCHANGE RATES, 30th JUNE, 1960.(a)
(s. d. per £100.)

Between—	And—						
	New South Wales.	Victoria.	Brisbane and adjacent towns.	South Australia.	Perth and all but distant towns.	Tasmania.	Aust. Cap. Terr.
Sydney and New South Wales towns	..	2 6	2 6	5 0	7 6	5 0	2 0
Melbourne and Victorian towns ..	2 6	..	5 0	2 6	5 0	2 6	2 0
Brisbane and adjacent towns ..	2 6	5 0	..	7 6	10 0	7 6	2 6
Adelaide and South Australian towns	5 0	2 6	7 6	..	2 6	5 0	5 0
Perth and all but distant towns ..	7 6	5 0	10 0	2 6	..	7 6	7 6
Hobart and Tasmanian towns ..	5 0	2 6	7 6	5 0	7 6	..	5 0
Australian Capital Territory ..	2 0	2 0	2 6	5 0	7 6	5 0	..

(a) Unchanged since 1st January, 1940.

There is no charge for transfers within a city or a town. In all States excepting Queensland and Western Australia, the exchange for transfers between towns in the same State is 2s. per £100. Queensland and Western Australia are divided into zones. The exchange rate for transfers between towns in the same zone is 2s. per £100, with higher rates for inter-zone transfers.

The exchange rate between the Territories of Papua and New Guinea and the mainland is 10s. per £100 for all points.

§ 2. Savings Banks.

1. *General.*—For information as to the origin of savings banks in Australia and the facilities currently available, see Official Year Book No. 46, page 779 and earlier issues of this Year Book.

During 1956, four new savings banks, the Bank of New South Wales Savings Bank Ltd., the Australia and New Zealand Savings Bank Ltd., the C.B.C. Savings Bank Ltd., and The Rural and Industries Bank of Western Australia, were established. Three of these are associated with and operate from the same premises as existing private trading banks, and the other is a division of a State bank—The Rural and Industries Bank of Western Australia. Savings banks operating at the end of 1959 were—the Commonwealth Savings Bank and the Australian and New Zealand Savings Bank Ltd. (in all States and Territories), the Bank of New South Wales Savings Bank Ltd. (in all States and Territories except South Australia and Tasmania), the C.B.C. Savings Bank Ltd. (in all States except South Australia and Tasmania), and in the Australian Capital Territory, The State Savings Bank of Victoria, The Savings Bank of South Australia, The Rural and Industries Bank of Western Australia, and the two trustee banks, The Launceston Bank for Savings and The Hobart Savings Bank.

All savings banks, including trustee savings banks but not State savings banks, are subject to the Banking Act 1959. Details of this Act and the special provisions applying to savings banks are given in Official Year Book No. 46, pages 759-60.

2. Branches and Agencies.—The number of branches and agencies in Australia of the various savings banks at 30th June, 1960, are given in the following table.

ALL SAVINGS BANKS: NUMBER OF BRANCHES AND AGENCIES AT 30th JUNE, 1960.

Bank.	Branches.	Agencies.
Commonwealth Savings Bank	664	6,575
Australia and New Zealand Savings Bank Ltd.	488	477
Bank of New South Wales Savings Bank Ltd.	667	214
C.B.C. Savings Bank Ltd.	374	81
The State Savings Bank of Victoria	370	627
The Savings Bank of South Australia	97	598
The Rural and Industries Bank of Western Australia	40	183
The Launceston Bank for Savings	20	74
The Hobart Savings Bank	20	17
Total	2,740	8,846

3. Number of Operative Accounts.—The following table shows the number of operative savings bank accounts in existence at the end of June, 1959 and 1960. It should be noted that these figures relate to the number of accounts and not necessarily to the number of depositors.

ALL SAVINGS BANKS: NUMBER OF OPERATIVE ACCOUNTS.(a)

State or Territory.	At end of June—	
	1959.	1960.
New South Wales	2,878,656	3,013,260
Victoria	2,565,242	2,691,561
Queensland	1,080,229	1,140,200
South Australia	888,614	930,812
Western Australia	527,079	550,966
Tasmania	299,328	310,844
Northern Territory	13,965	15,126
Australian Capital Territory	29,278	34,554
Total	8,282,391	8,687,323

(a) Excludes school bank accounts and inoperative accounts, i.e., accounts of less than £1 which have not been operated on for more than two years.

4. Business Transacted.—The following table shows details of the business transacted in Australia by savings banks during the years ended 30th June, 1959 and 1960:—

**ALL SAVINGS BANKS: BUSINESS TRANSACTED IN AUSTRALIA.
(£'000.)**

State or Territory.	Year ended June, 1959.				Year ended June, 1960.			
	Deposits During Year.	Withdrawals During Year.	Interest Added to Accounts During Year.	Amount on Deposit at end of June, 1959.	Deposits During Year.	Withdrawals During Year.	Interest Added to Accounts During Year.	Amount on Deposit at end of June, 1960.
New South Wales	508,185	481,121	12,191	488,273	599,007	559,792	14,084	541,572
Victoria	512,312	499,064	11,575	458,454	620,055	591,828	12,911	499,592
Queensland	181,664	172,442	4,187	166,653	207,595	196,470	4,808	182,586
South Australia	156,746	152,778	4,326	157,152	181,495	177,473	4,824	165,998
Western Australia	78,259	74,487	1,779	71,499	91,678	86,600	2,046	78,623
Tasmania	36,319	35,242	1,144	42,462	42,046	39,451	1,298	46,355
Northern Territory	3,246	3,156	51	2,239	3,846	3,565	62	2,582
Australian Capital Territory	7,005	6,318	108	4,600	8,595	7,935	136	5,396
Total	1,483,736	1,424,608	35,361	1,391,332	1,754,317	1,663,114	40,169	1,522,704

5. **Depositors' Balances.**—The amount at credit of depositors' accounts and the average per head of population for each State and Territory at the end of June, 1956 to 1960, are shown in the following table:—

ALL SAVINGS BANKS: DEPOSITORS' BALANCES IN AUSTRALIA.

At end of June.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N. Terr.	A.C.T.	Australia.
COMMONWEALTH SAVINGS BANK. (£'000.)									
1956..	363,711	110,215	126,998	31,880	54,295	14,312	4,384		705,795
1957..	363,406	114,542	129,816	33,590	53,697	15,252	4,470		714,773
1958..	367,439	117,805	132,545	35,222	53,613	16,119	4,820		727,563
1959..	380,962	122,577	138,924	37,374	54,981	17,020	5,364		757,208
1960..	402,398	131,243	145,706	39,763	57,078	18,175	5,953		800,316

**STATE SAVINGS BANKS.
(£'000.)**

1956..	..	264,317	..	103,876	635	..	..	..	368,828
1957..	..	266,276	..	108,811	2,302	..	..	..	377,389
1958..	..	272,807	..	113,636	3,597	..	..	..	389,950
1959..	..	281,296	..	119,778	4,471	..	..	..	405,545
1960..	..	298,107	..	123,930	5,793	..	..	..	427,830

**TRUSTEE SAVINGS BANKS: HOBART AND LAUNCESTON.
(£'000.)**

1956..	..	..	..	..	..	22,899	..	..	22,899
1957..	..	..	..	..	..	23,507	..	..	23,507
1958..	..	..	..	..	..	24,122	..	..	24,122
1959..	..	..	..	..	..	25,442	..	..	25,442
1960..	..	..	..	..	..	27,257	..	..	27,257

**PRIVATE SAVINGS BANKS.
(£'000.)**

1956..	22,843	11,644	5,702	..	3,004	..	282		43,475
1957..	58,778	30,751	14,792	..	6,694	..	726		111,741
1958..	81,579	43,019	20,699	..	8,823	..	1,083		155,208
1959..	107,311	54,581	27,729	..	12,041	..	1,475		203,137
1960..	139,174	70,242	36,880	2,305	15,752	923	2,025		267,301

**ALL SAVINGS BANKS.
(£'000.)**

1956..	386,554	386,176	132,700	135,756	57,934	37,211	1,656	3,010	1,140,997
1957..	422,184	411,569	144,608	142,401	62,693	38,759	1,894	3,302	1,227,410
1958..	449,018	433,631	153,244	148,858	65,948	40,241	2,098	3,805	1,296,843
1959..	488,273	458,454	166,653	157,152	71,499	42,462	2,239	4,600	1,391,332
1960..	541,572	499,592	182,586	165,998	78,623	46,355	2,582	5,396	1,522,704

**PER HEAD OF POPULATION.
(£. s. d.)**

1956..	108 15	8 148 4 9	96 16	3 159 19	10 85 10	6 116 8 3	90 10 0	87 5 11	121 0 7
1957..	116 10	8 153 18 11	103 10	8 163 1	10 90 12	3 118 4 1	98 15 8	87 4 4	127 5 8
1958..	121 14	3 158 3 7	108 2	4 166 0	0 93 10	2 119 19	5 107 2 11	92 8 11	131 14 2
1959..	129 19	8 162 17 9	115 13	0 170 13	3 99 8	5 124 0 10	106 18 4	99 17 1	138 5 9
1960..	141 9	3 172 15 3	124 15	8 175 12	3 107 12	4 133 8 5	103 1 11	118 9 10	148 2 3

6. **Cheque Accounts.**—At most savings banks, cheque accounts are available to non-profit organizations such as friendly, co-operative and charitable societies. Similar facilities are also available to other depositors at the State Savings Bank of Victoria. Details of the transactions on these accounts during the year ended June, 1960 (excluding the Savings Bank of South Australia), together with the number of operative accounts and the amount on deposit at the end of June, 1960, were as follows:—Deposits during the year, £331,576,395; withdrawals during the year, £326,137,955; interest added during the year, £699,643; number of operative accounts at the end of year, 163,138; amount on deposit at end of year, £42,134,479. These figures are included in the statistics in previous paragraphs.

7. **School Banking.**—With the object of encouraging principles of thrift among children, agencies of the savings banks have been established at most of the schools throughout Australia. Particulars of operative accounts within Australia at the end of June, 1956 to 1960, appear below:—

SCHOOL SAVINGS BANKS: AUSTRALIA.

At end of June—				Number of School Agencies.	Number of Operative Accounts.	Deposits.	Deposits per Operative Account.
						£	£ s. d.
1956..	..	..	..	8,591	825,692	5,785,495	7 0 2
1957..	..	..	..	8,294	895,139	6,429,490	7 3 8
1958..	..	..	..	8,650	986,758	6,924,422	7 0 4
1959..	..	..	..	8,856	1,050,742	7,479,254	7 2 4
1960..	..	..	..	9,042	1,118,101	8,154,973	7 5 10

8. **Assets.**—The assets within Australia of all Savings Banks as at the end of June 1959 and 1960, are given in the following table:—

ALL SAVINGS BANKS: ASSETS WITHIN AUSTRALIA.(a)
(£'000.)

Particulars.	At end of June—	
	1959.	1960.
Coin, Bullion and Australian Notes	3,253	2,888
Deposits with Reserve Bank	121,979	133,258
Deposits in Australia with Trading Banks	53,693	54,925
Australian Public Securities (including Treasury Bills and Seasonal Securities)—		
Commonwealth and States	740,128	793,829
Local and Semi-Governmental Authorities	248,938	285,296
Loans to Authorized Dealers in the Short-term Money Market	(b)	1,675
Cheques and Bills of other Banks and Balances with and due from other Banks	142	342
Loans, Advances and Bills Discounted—		
Housing	260,982	277,339
Other		
Bank Premises, Furniture and Sites	15,761	18,231
Bills Receivable and all other Assets	12,220	4,849
Total	1,457,096	1,596,181

(a) Includes assets in Territories of Papua, New Guinea and Norfolk Island.
separately, included in All other Assets.

(b) Not available

9. **War Savings and Savings Certificates.**—Sales of savings certificates and stamps under the War Savings and Savings Certificate schemes, particulars of which were given in earlier issues of the Official Year Book (see No. 37, page 586), were discontinued after 31st January, 1949, except for some sales made to wind up savings groups, etc. The total value of savings certificates outstanding at 30th June in each of the last five years was:—1956, £23,365,000; 1957, £20,043,000; 1958, £16,004,000; 1959, £10,633,000; 1960, £8,205,000.

10. **Commonwealth Savings Bank of Australia.**—(i) *General.* The Commonwealth Savings Bank of Australia was established as a separate institution on 9th June, 1928, having functioned previously as a department of the Commonwealth Bank (for particulars of the origin of the Savings Bank Department and the extension of its services see Official Year Book No. 46, page 783 and earlier issues of this Year Book). It has since then operated independently, publishing its own balance-sheets and profit and loss accounts. The Commonwealth Bank Act 1927, which provided for the establishment of the Commonwealth Savings Bank as a separate institution, provided for a Commission of three members to manage the savings bank. This Commission was never appointed, and the Commonwealth Bank Act 1945 placed the control of the Commonwealth Savings Bank under the Governor of the Commonwealth Bank. Under the provisions of the Commonwealth Banks Act 1959, which came into operation on 14th January, 1960, the Commonwealth Savings Bank was maintained in the same form, but was placed under the control

of the Commonwealth Banking Corporation (*see also* para. 6, page 762, Commonwealth Banking Corporation). Under the Banking Act 1959, the Commonwealth Savings Bank is subject to the same conditions as apply to the private savings banks and the trustee savings banks.

(ii) *Balance-sheet, 30th June, 1959 and 1960.* Particulars of the liabilities and assets of the Commonwealth Savings Bank as at 30th June, 1959 and 1960, were as follows:—

COMMONWEALTH SAVINGS BANK(a): LIABILITIES AND ASSETS, 30th JUNE, 1959 AND 1960.

(£'000.)

Liabilities.	1959.	1960.	Assets.	1959.	1960.
Reserve Fund ..	10,326	10,839	Coin, Bullion and Australian Notes ..	1,209	1,119
Depositors' Balances ..	764,817	807,121	Deposits with Reserve Bank ..	84,505	88,525
Bills payable and all other Liabilities	19,043	24,357	Deposits in Australia with Trading Banks ..		
			Australian Public Securities (including Treasury Bills)—		
			Commonwealth and States ..	470,552	495,935
			Local and Semi-Governmental Authorities ..	84,740	88,924
			Other Public Securities	..	996
			Loans to Authorized Dealers in the Short-term Money Market	..	825
			Loans and Advances (after deducting provisions for Debts considered bad or doubtful) ..	127,473	136,096
			Bank Premises ..	10,522	11,537
			Bills Receivable and all other Assets ..	15,185	8,099
Total	794,186	842,317	Total	794,186	842,317

(a) Includes branches in London, in the Territories of Papua, New Guinea, and Norfolk Island, and in the British Solomon Islands.

(iii) *Profits.* Under the terms of the Savings Bank Amalgamation Agreements relative to the absorption of the State savings banks by the Commonwealth Bank, the profits of the Commonwealth Savings Bank in New South Wales, Queensland, Western Australia and Tasmania are equally divided between the Bank and the former controlling authorities in those States. Net profits for the years ended 30th June, 1956 to 1960, and the distribution of those profits, are shown in the following table.

COMMONWEALTH SAVINGS BANK: DISTRIBUTION OF PROFITS.

(£.)

Year ended 30th June—	Total Profit.	Payments to State Authorities under Savings Bank Amalgamation Agreements.	Net Profit.	Distribution of Net Profit.	
				Commonwealth of Australia.	Savings Bank Reserve Fund.
1956	1,251,153	525,967	725,186	362,593	362,593
1957	890,419	310,033	580,386	290,193	290,193
1958	1,415,722	540,796	874,926	437,463	437,463
1959	1,302,708	486,836	815,872	407,936	407,936
1960	1,585,127	560,931	1,024,196	512,098	512,098

11. State Savings Banks.—(i) *General.* State savings banks at present operating (with date of establishment shown in parentheses) are: The State Savings Bank of Victoria (1841); The Savings Bank of South Australia (1848); The Rural and Industries Bank of Western Australia (1956).

(ii) *Assets.* The assets of the State savings banks, excluding the Rural and Industries Bank of Western Australia, as at the date of their respective balance sheets, are shown in the following table.

STATE SAVINGS BANKS: ASSETS AT 30th JUNE, 1959 AND 1960.
(£'000.)

Particulars.	1960.			1959.
	The State Savings Bank of Victoria including Crédit Foncier Dept.	The Savings Bank of South Australia.	Total.	Total.
Cash, Cash and Fixed Deposits with other Banks	36,336	15,386	51,722	58,200
Government Securities (including Treasury Bills)	102,536	57,064	159,600	157,654
Local and Semi-Governmental Securities	92,917	27,911	120,828	112,354
Mortgages	79,383	29,753	109,136	92,823
Landed and House Property	3,700	1,745	5,445	4,435
All other Assets	3,806	1,154	4,960	3,881
Total	318,678	133,013	451,691	(a) 429,347

(a) Details were: State Savings Bank of Victoria (including Crédit Foncier Department), £300,977,000, The Savings Bank of South Australia, £128,370,000.

(iii) *Profit and Loss Accounts.* Details of the profit and loss accounts of the State savings banks included in the table above are given below for the years 1958 and 1959.

STATE SAVINGS BANKS: PROFIT AND LOSS ACCOUNTS, YEARS ENDED
30th JUNE, 1959 AND 1960.
(£'000.)

Particulars.	1960.			1959.
	State Savings Bank of Victoria including Crédit Foncier Department.	Savings Bank of South Australia.	Total.	Total.
Receipts—				
Total—Interest, Dividends, Rents, and all other	13,550	5,444	18,994	16,804
Expenditure—				
Interest allotted to Depositors including provision for accrued interest	8,049	3,733	11,782	10,750
Expenses of Management and all other Expenditure	5,136	1,308	6,444	5,244
Total	13,185	5,041	18,226	15,994
Profit for year	365	403	768	810
Balance of profit and loss account brought forward	163	166	329	341
Total	528	569	1,097	1,151
Distribution of Profits—				
Amount written off Bank Premises	133	(a)	(b) 133	(b) 197
Amount carried to Reserves and Depreciation Funds	237	400	637	625
Balance of Profit and Loss Account carried forward	158	169	327	329

(a) Not available, included with expenses of management, &c.

(b) Incomplete, see footnote (a).

12. **Trustee Savings Banks, Hobart and Launceston.**—(i) *General.* Two Trustee Savings Banks, Hobart and Launceston, operate within Tasmania. These banks commenced business in 1845 and 1835 respectively. Under the Banking Act 1959, they are subject to the same conditions as apply to the Commonwealth Savings Bank and the private savings banks.

(ii) *Assets.* The assets of the Trustee Savings Banks as at 31st August, 1959 and 1960, are set out in the following table:—

TRUSTEE SAVINGS BANKS: ASSETS AT 31st AUGUST, 1959 AND 1960.
(£'000.)

Particulars.	1960.			1959.
	The Hobart Savings Bank.	The Launceston Bank for Savings.	Total.	Total.
Cash, Cash and Fixed Deposits with other Banks	1,450	1,489	2,939	3,113
Government Securities (including Treasury Bills)	3,453	4,065	7,518	6,924
Local and Semi-Governmental Securities ..	7,093	3,913	11,006	10,243
Mortgages	3,454	3,954	7,408	6,899
Landed and House Property	453	179	632	593
All other Assets	302	299	601	339
Total	16,205	13,899	30,104	(a)28,111

(a) Separate details were: The Hobart Savings Bank, £15,157,000 and the Launceston Bank for Savings, £12,954,000.

(iii) *Profit and Loss Accounts.* Details of the profit and loss accounts of the Trustee Savings Banks for the year ended 31st August, 1959 and 1960, are given below:—

TRUSTEE SAVINGS BANKS: PROFIT AND LOSS ACCOUNTS, YEARS ENDED 31st AUGUST, 1959 AND 1960.
(£'000.)

Particulars.	1960.			1959.
	The Hobart Savings Bank.	The Launceston Bank for Savings.	Total.	Total
<i>Receipts—</i>				
Total—Interest, Dividends, Rents and all other	687	587	1,274	1,126
<i>Expenditure—</i>				
Interest allotted to Depositors	456	383	839	768
Expenses of Management	166	145	311	243
All other Expenditure	4	..	4	4
Total	626	528	1,154	1,015
Profit for Year	61	58	119	111
Balance of Profit and Loss Account brought forward	54	54	108	107
Total	115	112	227	218
<i>Distribution of Profits—</i>				
Amount written off Bank Premises	21	21	42	53
Amount carried to Reserves and Depreciation Fund	40	37	77	57
Balance of Profit and Loss Account carried forward	54	54	108	108

13. **Private Savings Banks.**—(i) *General.* The Bank of New South Wales Savings Bank Ltd. and the Australia and New Zealand Savings Bank Ltd. commenced business on 19th January, 1956, and the C.B.C. Savings Bank Ltd. on 16th July, 1956. Each of these Savings Banks is subject to the provisions of the Banking Act 1959.

(ii) *Assets.* The assets of the private savings banks as at the date of their respective balance-sheets are shown in the following table:—

PRIVATE SAVINGS BANKS: ASSETS 1959 AND 1960.

(£'000.)

Particulars.	1960.				1959.
	The Australia and New Zealand Savings Bank Ltd. (a)	The Bank of New South Wales Savings Bank Ltd. (a)	C.B.C. Savings Bank Ltd. (b)	Total.	Total.
Cash at Bankers—					
Reserve Bank	8,930	15,450	4,448	28,828	23,619
Other Banks	4,054	7,092	1,988	13,134	14,194
Government Securities—					
Treasury Bills	349	200	200	749	1,110
Other	36,849	68,916	25,826	131,591	107,327
Local and Semi-Governmental Securities	23,863	37,593	7,061	68,517	48,704
Loans and Advances (including accrued interest and other accounts)	14,580	32,995	7,580	55,155	38,580
Total	88,625	162,246	47,103	297,974	c 233,534

(a) At 30th September. (b) At 30th June. (c) Separate details were:—The Australia and New Zealand Savings Bank Ltd., £68,825,000; the Bank of New South Wales Savings Bank Ltd., £128,465,000; C.B.C. Savings Bank Ltd., £36,244,000.

(iii) *Profit and Loss.* The net profit of the three private savings banks, after allowing for all expenses and providing for reserves and contingencies, etc., for the year ended 30th June, 1960 in respect of the C.B.C. Savings Bank Ltd. and the year ended 30th September, 1960, for the other banks, was (1959 figures in parentheses):—The Australia and New Zealand Savings Bank Ltd., £251,270 (£240,510); The Bank of New South Wales Savings Bank Ltd., £309,749 (£270,203); C.B.C. Savings Bank Ltd., £160,755 (£112,121); total, £721,774 (£622,834).

14. **Classification of Depositors' Balances.**—The classification of deposits published by savings banks does not permit a fully detailed analysis with respect to Australia as a whole, but the classification of deposits as at 30th June, 1956 to 1960, of the combined State Savings Banks of Victoria and South Australia, is shown below.

STATE SAVINGS BANKS: CLASSIFICATION OF DEPOSITS.

(Per cent.)

At 30th June—					£500 and under.	£501-£1,000.	Over £1,000.
1956 .. ..	..	..	..	..	39.93	29.90	30.17
1957 .. ..	..	..	..	..	38.43	28.83	32.74
1958 .. ..	..	..	..	..	37.64	28.03	34.33
1959 .. ..	..	..	..	..	36.99	26.05	36.96
1960 .. ..	..	..	..	..	36.43	24.24	39.33

15. Rates of Interest on Deposits.—The following table shows the rates of interest allowed by Savings Banks at the 30th June, 1956 to 1960.

SAVINGS BANKS: INTEREST RATES ON DEPOSITS.

(Per cent. per annum.)

Particulars.	Interest Rates at 30th June.				
	1956.	1957.	1958.	1959.	1960.
Commonwealth Savings Bank, State Savings Bank of Victoria, Bank of New South Wales Savings Bank Ltd.(a), Australia and New Zealand Savings Bank Ltd.(a), C.B.C. Savings Bank Ltd.(b), Rural and Industries Bank of Western Australia(c)—					
Ordinary Accounts(d)—					
£1 to £500	2½	2½	2½	3	3
£501 to £1,000	2½	2½	2½	3	3
£1,001 to £1,500	1½	1½	1½	3	3
£1,501 to £2,000	Nil	Nil	Nil	3	3
Friendly and other Society Accounts—					
£1 to £2,000	2½	2½	2½	3	3
£2,001 and over	1½	1½	1½	1½	1½
Deposit Stock(d)(e)—					
£10 to £1,000	2½	2½	2½	3½	3½
Savings Bank of South Australia—					
Ordinary Accounts(d)—					
£1 to £500	2½	2½	2½	3½	3½
£501 to £750	2½	2½	2½	3½	3½
£751 to £1,500	2½	2½	2½	3½	3½
£1,501 to £2,000	Nil	Nil	Nil	3½	3½
Friendly and other Society Accounts—					
£1 to £500	2½	2½	3	3½	3½
£501 to £2,000	2½	2½	2½	3½	3½
£2,001 and over	1½	1½	1½	1½	1½
Deposit Stock(d)—					
£10 to £2,000	2½	2½	3	3½	3½
Trustee Savings Banks—Hobart and Launceston—					
Ordinary Accounts(d)—					
£1 to £500(f)	3	3	3	3½	3½
£501 to £1,500	Nil	1½	1½	3½	3½
£1,501 to £2,000(g)	Nil	Nil	Nil	Nil	3½
Friendly and Other Society Accounts—					
£1 to £500(f)	3	3	3	3½	3½
£501 to £1,500	Nil	1½	1½	3½	3½
£1,501 to £2,000	Nil	Nil	Nil	1½	3½
£2,000 and over	Nil	Nil	Nil	Nil	1½

(a) Commenced Savings Bank business on 19th January, 1956. (b) Commenced Savings Bank business on 16th July, 1956. (c) Commenced Savings Bank business on 5th April, 1956. (d) No interest is payable on amounts in excess of the maximum amount shown. (e) State Savings Bank of Victoria only. (f) Prior to the 1st March, 1957, the maximum amount on which interest was payable was £450. (g) Prior to 1st January, 1960, the maximum amount on which interest was payable was £1,500.

C. REGISTERED BUILDING AND CO-OPERATIVE SOCIETIES.

§ 1. Registered Building Societies.

1. Summary.—During 1958 and 1959, returns were received from 1,310 and 1,457 societies respectively, but the information was not exhaustive, as particulars regarding a number of organizations were not included. In the following table, general information is given relating to the societies in each State for the year 1958–59 and to the combined States for 1957–58.

REGISTERED BUILDING SOCIETIES: SUMMARY, 1957-58 AND 1958-59.

Particulars.	1958-59.							1957-58.
	N.S.W.	Vic.(a)	Q'land.	S. Aust.	W. Aust.	Tas.	Total.	Total.
Societies making returns—								
Permanent .. No.	46	24	8	5	7	7	97	88
Terminating .. No.	1,285	2	44	20	9	..	1,360	1,222
Total .. No.	1,331	26	52	25	16	7	1,457	1,310
Shareholders .. No.	138,775	13,585	34,757	24,665	27,316	9,481	248,579	235,497
Shares .. '000.	(b) 2,732	1,235	14,008	157	(c)	180	(c)	(c)
Borrowers .. No.	215,298	15,976	15,141	4,440	5,835	3,625	60,315	57,690
	(£'000.)	(£'000.)	(£'000.)	(£'000.)	(£'000.)	(£'000.)	(£'000.)	(£'000.)
Income from interest, etc.	2,072	987	923	124	404	253	4,763	3,855
Working expenses ..	1,298	905	279	69	80	44	2,675	2,302
Amount of deposits ..	988	2,538	1,311	187	1,419	2,058	8,501	7,067
Repayment of loans ..	3,971	3,091	1,984	443	858	800	11,147	10,070
Loans granted ..	21,038	3,884	3,320	932	2,234	1,147	32,555	27,967

(a) Year 1959; excludes Co-operative Housing Societies, for details of which see para. 3.

(b) Terminating societies only.

(c) Not available.

(d) Permanent societies only.

2. **Liabilities and Assets.**—Particulars of liabilities and assets in 1958-59 of the societies mentioned in the previous paragraph are shown below, with totals for 1957-58.

REGISTERED BUILDING SOCIETIES: LIABILITIES, 1957-58 AND 1958-59.

(£'000.)

State.	1958-59.					1957-58.
	Paid-up Capital and Subscriptions.	Reserve Funds.	Deposits.	Bank Overdrafts and Other Liabilities.	Total Liabilities.	Total Liabilities.
New South Wales	39,441	3,103	1,862	105,013	149,419	139,043
Victoria(a) ..	4,307	(b) 1,251	3,661	8,601	17,820	16,862
Queensland ..	8,996	180	233	2,519	11,928	10,019
South Australia ..	2,699	320	406	513	3,938	3,461
Western Australia	3,726	288	1,463	(c) 1,916	7,393	5,969
Tasmania ..	1,944	187	1,896	521	4,548	4,014
Total ..	61,113	5,329	9,521	119,083	195,046	179,368

(a) Years 1959 and 1958.

(b) Includes balances of Profit and Loss Accounts, £101,000.

(c) Includes net accumulated profits, £187,000.

REGISTERED BUILDING SOCIETIES: ASSETS, 1957-58 AND 1958-59.

(£'000.)

State.	1958-59.					1957-58.
	Advances on Mortgage.	Landed and House Property, Furniture, etc.	Cash in Hand and on Deposit.	Other Assets.	Total Assets.	Total Assets.
New South Wales	(a) 146,440	(b)	(b)	2,979	149,419	139,043
Victoria(c) ..	17,185	209	111	315	17,820	16,862
Queensland ..	(a) 11,432	139	125	232	11,928	10,019
South Australia ..	3,624	50	76	188	3,938	3,461
Western Australia	7,093	128	59	113	7,393	5,969
Tasmania ..	4,176	120	10	242	4,548	4,014
Total ..	189,950	(d) 646	(d) 381	4,069	195,046	179,368

(a) Includes Starr-Bowkett and other terminating societies:—New South Wales, £126,231,402; Queensland, £2,749,799. (b) Not available. Included in Other Assets. (c) Years 1959 and 1958. (d) Incomplete, see note (b).

3. **Co-operative Housing Societies, Victoria.**—In addition to the information shown above, the following details of co-operative housing societies in Victoria have been extracted from the Annual Reports of the Registrar of Co-operative Housing Societies. At 30th June, 1959 (1958 in parentheses), 482 (442) co-operative housing societies were registered in Victoria with 34,828 (33,024) members who had subscribed for 1,418,663 (1,291,614) shares, giving a nominal share capital subscribed of £72,850,785 (£66,924,924). For the twelve months ended 30th April, 1959 (1958), returns were submitted by 460 (424) societies, the total income of those societies being £357,475 (£314,756) and total expenditure, £318,646 (£285,657). The liabilities at 30th April, 1959 (1958), of the societies submitting returns were:—bank or other loans £47,290,197 (£42,611,674), subscriptions £7,689,078 (£6,730,299), surplus interest and management expenses £670,189 (£534,505), other liabilities £1,892,399 (£1,471,783), total liabilities £57,541,863 (£51,348,261). Assets at the same date consisted of:—advances £57,273,561 (£51,017,980), other assets £268,302 (£330,281), total assets £57,541,863 (£51,348,261).

§ 2. Co-operative Societies.

Co-operative societies are divided into three classes—(i) those engaged in the manufacture and marketing of primary products and trade requirements; (ii) those engaged in retailing general household requirements; and (iii) those engaged in activities covered by both classes (i) and (ii). The first class may be described briefly as Producers' Co-operative Societies and the second as Consumers' Co-operative Societies. The particulars given for New South Wales relate to societies registered under the Co-operation Act 1923-1954. A summary of the business of all co-operative societies for the years 1958-59 or 1959 for all States except Western Australia is given in the following tables. Separate particulars for each of the three types of Co-operative Societies are given in the annual bulletin *Finance, Part I.—Public and Private Finance*, and issue No. 50—1958-59 contains details for 1957-58 or 1958.

CO-OPERATIVE SOCIETIES.

Particulars.	N.S.W. 1958-59.	Victoria 1958-59.	Queensland 1958-59.	S. Australia 1959.	Tasmania 1958-59.
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SUMMARY.

Societies	No.	318	105	158	71	20
Branches	"	(a)	(a)	112	(a)	18
Members	"	222,971	65,473	122,818	112,844	12,410
		£'000.	£'000.	£'000.	£'000.	£'000.
Gross Turnover (Sales)		117,876	28,581	60,086	15,955	3,771
Other Income		731	1,308	1,165	1,141	249
Total Income		118,607	29,888	61,251	17,096	4,020
Total Purchases		23,113	46,037	12,516	3,070	902
Other Expenditure		115,988	5,821	12,642	3,648	3,972
Total Expenditure		115,988	28,934	58,679	16,164	2
Rebates and Bonuses		1,935	263	767	759	50
Dividends on Share Capital		454	223	126	109	

LIABILITIES.

(£'000.)

Paid-up Capital		10,871	3,398	6,922	2,097	637
Loan Capital			808	5,911	2,901	410
Bank Overdrafts		7,449	1,426	5,512	1,264	433
Accumulated Profits		7,754	913	1,275	568	97
Reserve Funds		4,007	5,972	1,504	164	
Sundry Creditors		14,940	3,124	8,681	1,557	402
Other Liabilities			889	1,638	2,273	120
Total		41,014	14,565	35,911	12,164	2,263

ASSETS.

(£'000.)

Land and Buildings		18,008	7,727	6,378	2,572	540
Machinery, Plant and other Fixed Assets		12,642	2,522	4,111	3,382	283
Stocks		7,874	3,154	11,273	1,866	506
Sundry Debtors		2,490	477	1,150	670	608
Cash in hand and on deposit			196	295	73	106
Profit and Loss Account			489	3,748	2,056	22
Other Assets						198
Total		41,014	14,565	35,911	12,164	2,263

(a) Not available.

D. INSURANCE.

§ 1. Introductory.

1. **Legislation.**—Section 51 of the Commonwealth Constitution confers the necessary powers on the Commonwealth Parliament to legislate with respect to “insurance other than State insurance; also State insurance extending beyond the limits of the State concerned”. Commonwealth legislation includes the Marine Insurance Act 1909 defining the limits of marine insurance and regulating the terms of contracts, etc., the Insurance Act 1932–1937 requiring the lodgment of deposits by insurance companies, and the Life Insurance Act 1945–1959 generally regulating life assurance business in Australia. The Marine Insurance Act 1909 and the Insurance Act 1932–1937 have limited application, and, except for life assurance business, which is regulated by the Life Insurance Act 1945–1959, insurance business is conducted almost entirely under State laws.

2. **Insurance Act 1932–1937.**—Companies, persons or associations of persons carrying on insurance business in Australia or in any Territory of Australia are required to lodge a deposit with the Commonwealth Treasurer.

Money deposited is invested by the Treasurer in prescribed securities selected by the depositor, and all interest is paid to depositors. Deposits remain as security against liability to policy holders, and are available to satisfy judgments obtained in respect of policies.

Deposits held by States on 1st February, 1932, could, however, remain with the States subject to the conditions embodied in the laws of the States, and depositors to the extent of the value of these deposits were exempt from liability to make deposits under the Commonwealth Act.

The following are not regarded as insurance business under the Act:—

Staff superannuation schemes; schemes of religious organizations solely for insurance of their property; and friendly society, union and association schemes involving superannuation or insurance benefits to employees.

This Act does not apply to State insurance within the limits of the State concerned, and, under the Life Insurance Act 1945–1959, ceased to apply to life assurance business.

3. **Life Insurance Act 1945–1959.**—The objects of this Act are:—(a) to replace all State legislation on the subject of life assurance, except that relating to the life assurance operations of State insurance offices within the State concerned, and to provide uniform legislation for the whole of Australia; (b) to appoint an Insurance Commissioner to exercise active supervision of the activities of life assurance companies, with a view to securing the greatest possible protection for policy holders; (c) to set up adequate machinery for dealing with any company that fails to maintain a required minimum standard of solvency.

The Act was assented to on 16th August, 1945, and came into operation on 20th June, 1946. A summary of the provisions of the Act is given in Official Year Book No. 37, pages 595 to 597.

The provisions of the Act relating to the establishment of a Commonwealth Government Insurance Office were repealed under the Life Insurance Act No. 94 of 1953.

4. **Export Payments Insurance Corporation Act 1956.**—Details of the operations of the Export Payments Insurance Corporation set up under this Act may be found in § 5 of Chapter XIII., Trade (*see* p. 491).

5. **Deposits under Insurance Acts.**—Deposits lodged under the Insurance Acts at 30th June, 1960, totalled £8,150,853, comprising £1,566,580 held by the Commonwealth in respect of Life Assurance and £6,361,983 held by the Commonwealth and £222,290 held by the States in respect of other forms of insurance. The deposits consisted of government, local, and semi-governmental securities £5,327,013, fixed deposits £6,000, bank guarantees and undertakings £1,913,000, Corporation Debentures and Stock £162,400 and titles and mortgages £520,150 (Commonwealth-held deposits only).

§ 2. Life Assurance.

1. General.—Since 1947, returns lodged under the Life Insurance Act 1945–1959 have been used to compile life assurance statistics. Except where otherwise indicated, the figures in the succeeding paragraphs refer to Australian business only. Business in the Territories of Papua and New Guinea is, however, included in the Australian figures.

2. Offices Transacting Business.—The number of offices which transacted life assurance business in Australia during 1959 was 32, including 9 oversea companies. Of the 23 Australian offices, 6 are purely mutual, including one which transacts general business in respect of which share capital is used, 15 are public companies, and 2 are State Government institutions. Of the total offices, 19 transacted ordinary business only and the remainder both ordinary and industrial business. Where possible, ordinary and industrial business have been kept separate in the following tables.

3. Australian Business—Policies in Existence.—In the following table, details of policies on the registers in each State and in the Australian Capital Territory are given for the year 1959:—

LIFE ASSURANCE : POLICIES EXISTING IN AUSTRALIA, 1959.

State or Territory.(a)	Assurance and Endowment Policies.				Annuity Policies.		
	Number of Policies.	Sum Assured. (£'000.)	Bonus Additions. (£'000.)	Annual Premiums. (£'000.)	Number of Policies.	Annuities per Annum. (£'000.)	Annual Premiums. (£'000.)
ORDINARY DEPARTMENT.							
New South Wales ..	1,307,623	1,025,370	87,200	33,495	1,885	1,848	484
Victoria ..	1,009,971	993,080	74,180	30,011	2,563	6,706	1,946
Queensland(b) ..	627,793	472,399	34,129	13,896	251	68	10
South Australia(c) ..	357,968	305,213	24,130	10,006	295	79	15
Western Australia ..	245,959	198,161	16,722	6,627	180	57	8
Tasmania ..	122,674	112,193	8,627	3,422	155	99	27
Australian Capital Territory ..	38,491	179,294	3,904	2,540	344	905	173
Australia(b) ..	3,710,479	3,285,710	248,892	99,997	5,673	9,762	2,663

INDUSTRIAL DEPARTMENT.

New South Wales ..	1,271,958	125,827	4,809	5,899	..	..	..
Victoria ..	1,069,764	101,425	4,100	4,756	..	..	..
Queensland(b) ..	418,725	40,801	1,462	1,895	..	..	..
South Australia(c) ..	369,621	32,993	1,288	1,537	..	..	..
Western Australia ..	214,828	21,639	795	995	..	..	..
Tasmania ..	84,371	8,027	329	366	..	..	..
Australian Capital Territory ..	13,901	1,827	74	84	..	..	..
Australia(b) ..	3,443,168	332,539	12,857	15,532	..	..	..

(a) Location of register of policies.
(c) Includes the Northern Territory.

(b) Includes Territories of Papua and New Guinea.

The following table shows particulars of policies existing at the end of the years 1955 to 1959 inclusive:—

LIFE ASSURANCE: POLICIES EXISTING IN AUSTRALIA.

At End of Year—	Assurance and Endowment Policies.				Annuity Policies.	
	Number of Policies.	Sum Assured. (£'000.)	Average per Policy. (£.)	Annual Premiums. (£'000.)	Number of Policies.	Annuities per Annum. (£'000.)

ORDINARY DEPARTMENT.

1955	3,183,644	1,970,750	619	66,551	17,135	7,199
1956	3,319,429	2,223,270	670	73,663	17,294	8,172
1957	3,445,644	2,533,396	735	82,332	13,308	8,565
1958	3,576,943	2,873,388	803	90,752	12,016	9,486
1959	3,710,479	3,285,710	886	99,997	5,673	9,762

INDUSTRIAL DEPARTMENT.

1955	3,765,851	307,370	82	14,901	..	..
1956	3,701,540	315,440	85	15,132	..	..
1957	3,615,271	322,516	89	15,334	..	..
1958	3,530,826	328,626	92	15,493	..	..
1959	3,443,168	332,539	97	15,532	..	..

4. New Policies issued in Australia.—In the following table, details are given of new policies issued in each State and the Australian Capital Territory during 1959 for each class of business:—

LIFE ASSURANCE: NEW POLICIES ISSUED IN AUSTRALIA, 1959.

State or Territory.(a)	Assurance and Endowment Policies.				Annuity Policies.			
	Number of Policies.	Sum Assured. (£'000.)	Premiums.		Number of Policies.	Annuities per Annum. (£'000.)	Premiums.	
			Single. (£'000.)	Annual. (£'000.)			Single. (£'000.)	Annual. (£'000.)

ORDINARY DEPARTMENT.

New South Wales ..	112,908	176,661	127	5,122	158	237	136	84
Victoria ..	90,939	193,873	199	4,715	283	969	200	295
Queensland(b) ..	57,047	77,254	147	2,010	16	7	28	1
South Australia(c) ..	34,022	53,445	54	1,509	24	15	30	3
Western Australia ..	26,063	33,606	23	984	24	10	33	4
Tasmania ..	13,069	19,674	6	522	3	13	..	5
Australian Capital Territory ..	7,284	43,726	172	645	39	132	66	30
Australia(b) ..	341,332	598,239	728	15,507	547	1,383	493	422

INDUSTRIAL DEPARTMENT.

New South Wales ..	79,127	13,148	..	628	..	..	..	..
Victoria ..	52,804	9,343	..	434	..	..	..	..
Queensland(b) ..	21,990	3,816	..	179	..	..	..	..
South Australia(c) ..	19,184	3,049	..	142	..	..	..	..
Western Australia ..	13,223	2,213	..	104	..	..	..	..
Tasmania ..	4,452	885	..	40	..	..	..	..
Australian Capital Territory ..	1,744	342	..	16	..	..	..	..
Australia(b) ..	192,524	32,796	..	1,543	..	..	..	..

(a) Location of register of policies.
(c) Includes the Northern Territory.

(b) Includes Territories of Papua and New Guinea.

New policies issued in Australia during each of the years 1955 to 1959 were as shown in the following table:—

LIFE ASSURANCE: NEW POLICIES ISSUED IN AUSTRALIA.

Year.	Assurance and Endowment Policies.				Annuity Policies.				
	Number of Policies.	Sum Assured. (£'000.)	Premiums.		Number of Policies.	Annuities per Annum. (£'000.)	Premiums.		
			Single (£'000.)	Annual (£'000.)			Single. (£'000.)	Annual. (£'000.)	
ORDINARY DEPARTMENT.									
1955	..	314,545	335,473	541	11,003	1,619	1,599	773	386
1956	..	316,620	372,436	625	11,646	1,592	1,851	793	392
1957	..	317,735	445,470	649	13,521	1,512	1,250	869	288
1958	..	322,269	499,694	760	14,044	925	1,464	355	409
1959	..	341,332	598,239	728	15,507	547	1,383	493	422
INDUSTRIAL DEPARTMENT.									
1955	..	216,896	33,175	..	1,532	..	..	..	..
1956	..	211,411	32,977	..	1,558	..	..	..	..
1957	..	209,733	33,459	..	1,580	..	..	..	..
1958	..	200,954	33,071	..	1,553	..	..	..	..
1959	..	192,524	32,796	..	1,543	..	..	..	..

5. Policies Matured or Otherwise Discontinued in Australia.—In the following table, details are given of ordinary and industrial life assurance policies matured or otherwise discontinued in each State and the Australian Capital Territory during the year 1959.

LIFE ASSURANCE: POLICIES MATURED OR OTHERWISE DISCONTINUED IN AUSTRALIA, 1959.

State or Territory.(a)	Assurance and Endowment.			Annuity Policies.		
	Number of Policies.	Sum Assured. (£'000.)	Annual Premiums. (£'000.)	Number of Policies.	Annuities per Annum. (£'000.)	Annual Premiums. (£'000.)
ORDINARY DEPARTMENT.						
New South Wales	77,785	76,411	2,490	1,419	249	107
Victoria	57,195	58,364	1,908	3,510	747	216
Queensland(b)	36,000	28,232	908	740	44	15
South Australia(c)	17,933	16,630	572	587	38	11
Western Australia	14,027	11,626	402	402	25	11
Tasmania	8,359	7,265	232	203	23	9
Australian Capital Territory	— 3,503	— 12,611	— 252	29	— 20	— 39
Australia(b)	207,796	185,917	6,260	6,890	1,106	330
INDUSTRIAL DEPARTMENT.						
New South Wales	106,358	11,400	595	..	..	..
Victoria	85,814	8,309	437	..	..	..
Queensland(b)	32,218	3,483	182	..	..	..
South Australia(c)	28,242	2,610	136	..	..	..
Western Australia	19,100	2,075	106	..	..	..
Tasmania	7,795	891	42	..	..	..
Australian Capital Territory	655	118	6	..	..	..
Australia(b)	280,182	28,886	1,504	..	..	..

(a) Location of register of policies.

(b) Includes Territories of Papua and New Guinea.

(c) Includes the Northern Territory.

NOTE.—Minus sign (—) indicates excess of transfers to registers or other adjustment to number and value of policies.

Policies matured or otherwise discontinued in Australia during each of the years 1955 to 1959 were as shown in the following table.

LIFE ASSURANCE: POLICIES MATURED OR OTHERWISE DISCONTINUED IN AUSTRALIA.

Year.	Assurance and Endowment Policies.			Annuity Policies.		
	Number of Policies.	Sum Assured. (£'000.)	Annual Premiums. (£'000.)	Number of Policies.	Annuities per Annum. (£'000.)	Annual Premiums. (£'000.)
ORDINARY DEPARTMENT.						
1955	164,151	105,883	4,045	1,449	668	228
1956	180,858	119,928	4,534	1,436	878	227
1957	191,520	135,344	4,852	5,498	857	(b)—308
1958	190,970	159,702	5,627	2,217	543	197
1959	207,796	185,917	6,260	6,890	1,106	330
INDUSTRIAL DEPARTMENT.						
1955(a)	277,790	22,799	1,214	..	..	..
1956	275,722	24,907	1,327	..	..	..
1957	296,002	26,383	1,378	..	..	..
1958	285,399	26,960	1,393	..	..	..
1959	280,182	28,886	1,504	..	..	..

(a) Includes policies in existence at beginning of year which were discontinued as a result of the winding up of a company. (b) The negative amount shown is due to an adjustment to the annual premiums on certain annuities which in previous years were treated as single premiums.

The number of policies and sums assured, excluding annuities, discontinued during the years 1955 to 1959 and the causes for discontinuance are given in the following table:—

LIFE ASSURANCE: POLICIES(a) MATURED OR OTHERWISE DISCONTINUED IN AUSTRALIA—CAUSE OF DISCONTINUANCE.

Year.	Death or Maturity.	Surrender.	Forfeiture.	Other.	Total.
ORDINARY DEPARTMENT: NUMBER OF POLICIES.					
1955	48,224	67,929	42,941	5,057	164,151
1956	52,876	72,659	44,073	11,250	180,858
1957	55,923	77,937	42,981	14,679	191,520
1958	58,914	85,211	42,805	4,040	190,970
1959	62,251	92,030	45,413	8,102	207,796
ORDINARY DEPARTMENT: SUM ASSURED. (£'000.)					
1955	16,012	50,065	35,467	4,339	105,883
1956	18,042	53,378	37,766	10,742	119,928
1957	19,475	60,231	41,868	13,770	135,344
1958	21,689	69,721	49,444	18,848	159,702
1959	23,018	77,059	60,150	25,690	185,917
INDUSTRIAL DEPARTMENT: NUMBER OF POLICIES.					
1955	167,060	54,895	54,922	(b) 913	277,790
1956	171,748	60,531	61,276	— 17,833	275,722
1957	174,327	66,940	54,612	123	296,002
1958	159,145	69,878	56,168	208	285,399
1959	155,108	74,069	50,865	140	280,182
INDUSTRIAL DEPARTMENT: SUM ASSURED. (£'000.)					
1955	7,517	6,574	8,675	(b) 33	22,799
1956	7,944	7,828	9,994	— 859	24,907
1957	8,439	8,722	9,186	36	26,383
1958	8,006	9,416	9,478	60	26,960
1959	8,200	10,600	10,023	63	28,886

(a) Excludes annuities.

(b) See note (a) to previous table.

NOTE.—Minus sign (—) indicates excess of transfers to registers or other adjustment to number and value of policies.

6. Premiums and Claims, Australia.—(i) *Premiums.* (a) *Ordinary Business.* Details of revenue from premiums in respect of the ordinary business of all offices doing business in Australia are shown in the following tables for each State and the Australian Capital Territory for the year 1959:—

ORDINARY LIFE ASSURANCE: AUSTRALIAN REVENUE FROM PREMIUMS, 1959.
(£'000.)

State or Territory.(a)	Assurance and Endowment Premiums.		Consideration for Annuities.		Total.
	Single Premiums.	Other Premiums.	Single Premiums.	Other Premiums.	
New South Wales	131	33,413	141	562	34,247
Victoria	204	30,240	196	1,873	32,513
Queensland(b)	125	13,625	28	12	13,790
South Australia(c)	55	9,769	30	13	9,867
Western Australia	22	6,556	31	22	6,631
Tasmania	7	3,347	..	28	3,382
Australian Capital Territory ..	126	4,129	66	591	4,912
Australia(b)	670	101,079	492	3,101	105,342

(a) Location of register of policies.

(b) Includes Territories of Papua and New Guinea.

(c) Includes the Northern Territory.

(b) *Industrial Business.* Details of revenue from premiums in respect of the industrial business of all offices doing business in Australia are shown in the following table for each State and the Australian Capital Territory for the year 1959:—

INDUSTRIAL LIFE ASSURANCE: AUSTRALIAN REVENUE FROM PREMIUMS, 1959.
(£'000.)

State or Territory.(a)	Assurance and Endowment Premiums.		Total.
	Single Premiums.	Other Premiums.	
New South Wales	10	5,755	5,765
Victoria	4	4,720	4,724
Queensland (b) .. ..	..	1,859	1,859
South Australia(c) .. ..	..	1,511	1,511
Western Australia	1	970	971
Tasmania .. ..	..	360	360
Australian Capital Territory ..	..	74	74
Australia(b)	15	15,249	15,264

(a) Location of register of policies.

(b) Includes Territories of Papua and New Guinea.

(c) Includes the Northern Territory.

(c) *Ordinary and Industrial Business.* The following table shows, for each of the years 1955 to 1959, the aggregate Australian income from premiums in respect of both ordinary and industrial business of all offices doing business in Australia:—

LIFE ASSURANCE: AUSTRALIAN REVENUE FROM PREMIUMS.
(£'000.)

Year.	Ordinary Department.			Industrial Department.	Ordinary and Industrial Departments Combined.
	Assurance and Endowment Premiums.	Consideration for Annuities.	Total.		
1955	66,811	2,529	69,340	14,614	83,954
1956	74,413	2,700	77,113	15,002	92,115
1957	83,256	3,009	86,265	15,041	101,306
1958	92,126	3,377	95,503	15,184	110,687
1959	101,749	3,593	105,342	15,264	120,606

(ii) *Claims, etc., Paid.* Details of the claims, etc., paid on policies in each State and the Australian Capital Territory during the year 1959 are shown in the following table:—

LIFE ASSURANCE: PAYMENTS TO POLICY-HOLDERS IN AUSTRALIA, 1959.
(£'000.)

State or Territory.(a)	Claims.		Surrenders.	Annuities.	Cash Bonuses.	Total.
	Death or Disability.	Maturity.				
ORDINARY DEPARTMENT.						
New South Wales	5,013	5,210	3,997	201	62	14,483
Victoria	4,424	4,395	3,593	249	261	12,922
Queensland(b) ⁱ	1,886	1,949	1,375	27	18	5,255
South Australia(c)	1,128	1,326	887	27	12	3,380
Western Australia	794	818	736	19	13	2,380
Tasmania	485	369	405	17	3	1,279
Australian Capital Territory ..	433	297	502	38	1	1,271
Australia(b)	14,163	14,364	11,495	578	370	40,970

INDUSTRIAL DEPARTMENT.

New South Wales	370	3,060	720	..	..	4,150
Victoria	287	2,667	542	..	..	3,496
Queensland(b)	118	891	235	..	..	1,244
South Australia(c)	95	770	163	..	..	1,028
Western Australia	62	470	124	..	..	657
Tasmania	23	210	56	..	..	287
Australian Capital Territory ..	10	18	8	..	..	36
Australia(b)	964	8,086	1,848	..	..	10,898

(a) Location of register of policies.
(c) Includes the Northern Territory.

(b) Includes Territories of Papua and New Guinea.

In the following table details are given of claims, etc., paid on policies in Australia for each of the years 1955 to 1959:—

LIFE ASSURANCE: PAYMENTS TO POLICY-HOLDERS IN AUSTRALIA.
(£'000.)

Year.	Claims.	Surrenders.	Annuities.	Cash Bonuses.	Total.
ORDINARY DEPARTMENT.					
1955	20,105	6,109	430	218	26,862
1956	22,436	7,123	472	180	30,211
1957	24,187	8,825	493	135	33,640
1958	26,328	10,295	524	183	37,330
1959	28,527	11,495	578	370	40,970
INDUSTRIAL DEPARTMENT.					
1955	8,311	1,056	..	..	9,367
1956	8,767	1,270	..	..	10,037
1957	9,361	1,498	..	..	10,859
1958	8,806	1,664	..	..	10,470
1959	9,050	1,848	..	..	10,898

7. *Total Revenue and Expenditure.*—(i) *Total Revenue.* The following table shows particulars of the total life assurance revenue derived by life assurance offices from sources within and beyond Australia during each of the years 1955 to 1959:—

ORDINARY AND INDUSTRIAL LIFE ASSURANCE: TOTAL REVENUE.
(£'000.)

Year.	Assurance and Endowment Premiums.	Con-sideration for Annuities Granted.	Net Interest, Dividends and Rents.	All other Revenue.	Total Revenue.
ORDINARY BUSINESS.					
1955	89,353	3,240	27,216	548	120,357
1956	98,689	3,488	30,886	416	133,479
1957	109,353	4,081	35,417	353	149,204
1958	121,802	4,693	41,429	530	168,454
1959	138,168	5,591	49,678	2,433	195,870

INDUSTRIAL BUSINESS.					
1955	16,757	..	4,919	179	21,855
1956	17,174	..	5,274	28	22,476
1957	17,210	..	5,592	29	22,831
1958	17,336	..	6,072	12	23,420
1959	17,746	..	6,787	406	24,939

(ii) *Total Expenditure.* The next table supplies details of the total expenditure, both within and beyond Australia, of life assurance offices during each of the years 1955 to 1959:—

ORDINARY AND INDUSTRIAL LIFE ASSURANCE: TOTAL EXPENDITURE.
(£'000.)

Year.	Claims and Annuities paid.	Surrenders.	Cash Bonuses paid to Policy-holders.	Com-mission.	Transfers to Profit and Loss Account including Share-holders' Dividends.	All other Expendi-ture.	Total Expendi-ture.
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ORDINARY BUSINESS.							
1955	30,398	8,187	280	7,419	173	10,843	57,300
1956	33,233	9,506	267	7,968	165	10,838	61,977
1957	35,944	11,463	238	9,160	223	12,741	69,769
1958	39,693	13,708	306	9,900	212	14,251	78,070
1959	44,827	16,209	559	11,045	196	17,239	90,075

INDUSTRIAL BUSINESS.							
1955	9,994	1,185	..	2,406	28	3,066	16,679
1956	10,490	1,417	..	2,515	65	3,067	17,554
1957	11,218	1,648	..	2,538	78	3,436	18,918
1958	10,556	1,830	..	2,549	61	3,670	18,666
1959	10,932	2,066	..	2,495	40	3,833	19,366

8. **Liabilities and Assets.**—(i) *General.* The liabilities of the Australian offices consist mainly of their assurance funds, but in the case of public companies there is a further liability on account of the shareholders' capital. The assets consist chiefly of government and municipal securities, mortgages, loans on policies, landed and house property, etc. Loans on personal security are granted by very few of the Australian offices. Separate details of liabilities and assets in respect of Australian business are not available.

(ii) *Total Liabilities and Assets.* In the two tables which follow, the details of liabilities and assets relate to all business (Australian and overseas) of Australian companies, the life assurance of the two State Government offices, all business of the Provident Life Assurance Co. Ltd. (incorporated in New Zealand) and the Australian business only of the other eight overseas companies operating in Australia. For various reasons, several offices do not attempt the dissection of liabilities and assets between the industrial and ordinary branches, and, therefore, the figures in the following tables relate to the ordinary and industrial branches combined. Details of the total liabilities of life assurance offices for the year 1959 are given in the following table:—

ORDINARY AND INDUSTRIAL LIFE ASSURANCE: TOTAL LIABILITIES, 1959.

(£'000.)

Particulars.	Life Assurance Business.	Other Classes of Business.	Total Liabilities.
<i>Shareholders' Capital—</i>			
Authorized .. .. .	..	8,767	8,767
Less Unissued .. .. .	..	5,245	5,245
<i>Subscribed Capital</i> .. .. .	..	3,522	3,522
<i>Paid-up—</i>			
In Money .. .. .	..	3,192	3,192
Otherwise than in Money .. .. .	..	79	79
<i>Total</i> .. .. .	..	3,271	3,271
<i>Life Assurance Statutory Funds—</i>			
Ordinary Department	1,095,035	..	1,095,035
Industrial Department	146,560	..	146,560
<i>Total</i>	1,241,595	..	1,241,595
<i>Funds in respect of Other Classes of Business</i> .. .. .	..	1,844	1,844
General Reserves	19,963	2,542	22,505
Profit and Loss Account Balance .. .. .	..	309	309
<i>Total, Shareholders' Capital, Assurance Funds and Reserves</i>	1,261,558	7,966	1,269,524
<i>Other Liabilities—</i>			
Deposits	9,125	4,233	13,358
Staff Provident and Superannuation Funds	2,950	359	3,309
Claims admitted or intimated but not paid	12,590	695	13,285
Annuities due but not paid	2	..	2
Premiums Paid in Advance and in Suspense	1,374	24	1,398
Sundry Creditors	4,766	375	5,141
Bank Overdraft	3,992	1,183	5,175
Reserves and Provisions for Taxation	7,918	286	8,204
All Other Liabilities	1,332	587	1,919
Total Liabilities	1,305,607	15,708	1,321,315

The following table furnishes details of the total assets of life assurance offices for the year 1959.

ORDINARY AND INDUSTRIAL LIFE ASSURANCE: TOTAL ASSETS, 1959.
(£'000.)

Particulars.	Life Assurance Business.	Other Classes of Business.	Total.	Amount of Total Assets held in Australia.
<i>Fixed Assets—</i>				
Freehold and Leasehold Property, office premises	69,773	665	70,438	51,566
Furniture, etc.	1,604	87	1,691	1,348
<i>Total Fixed Assets</i>	<i>71,377</i>	<i>752</i>	<i>72,129</i>	<i>52,914</i>
<i>Loans—</i>				
On Mortgage	445,855	228	446,083	319,442
On Policies of the Company including Advances of Premiums	57,827	..	57,827	42,078
Other Loans	33,638	942	34,580	34,233
<i>Total Loans</i>	<i>537,320</i>	<i>1,170</i>	<i>538,490</i>	<i>395,753</i>
<i>Investments—</i>				
Government Securities—				
Australia	236,727	6,848	243,575	226,477
Other	74,452	114	74,566	..
Securities of Local and Semi-Governmental Bodies	183,443	559	184,002	132,696
Other Investments	179,377	4,381	183,758	148,848
<i>Total Investments</i>	<i>673,999</i>	<i>11,902</i>	<i>685,901</i>	<i>508,021</i>
Cash on Deposit, Current Account and in hand	2,304	266	2,570	1,760
Other Assets	20,607	1,618	22,225	16,806
<i>Total Assets</i>	<i>1,305,607</i>	<i>15,708</i>	<i>1,321,315</i>	<i>975,254</i>

(iii) *Assets held in Australia.* Details of assets held in Australia for the years 1955 to 1959 are set out in the following table:—

ORDINARY AND INDUSTRIAL LIFE ASSURANCE(a): ASSETS HELD IN AUSTRALIA.
(£'000.)

Particulars.	1955.	1956.	1957.	1958.	1959.
Landed and House Property ..	22,345	30,290	39,276	43,670	51,566
Government and Municipal Securities	320,471	326,323	338,520	350,671	359,173
Other Investments	71,756	80,961	92,561	117,824	148,848
Loans on Mortgage	197,710	230,688	261,011	294,625	319,442
Loans on Companies' Policies	25,661	29,315	32,880	37,402	42,078
Other Loans	23,923	27,663	29,412	23,522	34,233
All other Assets	13,958	14,247	15,089	16,689	19,914
<i>Total</i>	<i>675,824</i>	<i>739,487</i>	<i>808,749</i>	<i>884,403</i>	<i>975,254</i>

(a) Life assurance and other classes of business.

9. *Loans.*—In the following table, details are given of new loans granted by life assurance companies during each of the years ended 31st December, 1956 to 1960. The information has been compiled from monthly returns furnished by each company. New loans granted by the Government Insurance Office of New South Wales and the Queensland State Government Insurance Office are not included. Advances of premiums are also excluded.

LIFE ASSURANCE COMPANIES: NEW LOANS GRANTED.
(£'000.)

Particulars.	1956.	1957.	1958.	1959.	1960.
CLASS OF SECURITY.					
Mortgage of Real Estate ..	47,707	48,969	53,953	58,900	67,680
Companies' Policies ..	5,903	6,334	7,470	7,925	10,080
Other	4,250	4,431	5,399	6,777	6,303
Total	57,860	59,734	66,822	73,602	84,063
STATE OR TERRITORY.(a)					
New South Wales	22,542	26,454	30,096	33,674	35,743
Victoria	20,121	17,115	17,699	20,516	25,520
Queensland(b)	4,548	4,696	6,653	7,305	7,782
South Australia(c)	4,698	5,724	6,047	5,630	7,049
Western Australia	3,550	3,318	3,556	3,570	4,443
Tasmania	2,324	2,334	2,576	2,767	3,221
Australian Capital Territory	77	93	195	140	305
Total	57,860	59,734	66,822	73,602	84,063

(a) State or Territory of location of mortgage, registration of policy, or residence of borrower.
 (b) Includes Territories of Papua and New Guinea. (c) Includes the Northern Territory.

§ 3. Fire, Marine and General Insurance.

1. **General.**—The following statistics, which are in respect of the Australian business of companies operating in Australia and State Government insurance offices, conform to the following definitions and should be interpreted in accordance therewith.

(a) Premiums represent the full amount receivable in respect of policies issued and renewed in the year, less returns, rebates and bonuses paid or credited to policy-holders during the year. They are not adjusted to provide for premiums unearned at the end of the year and consequently the amounts differ from "earned premium income" appropriate to the year. When business is increasing, as in recent years, premiums receivable (as shown in the statistics) are greater than "earned premium income" appropriate to the year. The converse applies when business is declining.

(b) Claims or losses include provision for outstanding claims and represent claims or losses incurred in the year. Salvage and other amounts recoverable have been deducted.

(c) Contributions to Fire Brigades, Commission and Agents' Charges, and Expenses of Management represent mainly charges paid during the year.

(d) Taxation represents mainly payments made during the year, and includes income tax, pay-roll tax, licence fees, stamp duty (where paid by the company), etc. Income tax paid during the year is based on the income of earlier years.

The tables contain selected items of statistics and are not construable as "Profit and Loss" statements or "Revenue Accounts".

In cases where the business is underwritten in one State and the risk is situated in another, the business is included in the State in which the policy was issued.

During 1959–60, revenue from premiums amounted to £180,880,000, and that from net interest on investments, etc., to £8,460,000, a total of £189,340,000. Expenditure on claims amounted to £107,841,000, contributions to fire brigades £4,743,000, commission and agents' charges £17,373,000, expenses of management £29,933,000, and taxation £7,291,000, a total of £167,181,000.

2. **States.**—The following table shows, for each State, the aggregate premium income less reinsurances and returns, and claims or losses less amounts recoverable, for all classes of insurance other than life for the years 1955–56 to 1959–60.

FIRE, MARINE AND GENERAL INSURANCE: PREMIUMS AND CLAIMS—STATES.
(£'000.)

State:	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
GROSS PREMIUMS, LESS REINSURANCES AND RETURNS.					
New South Wales(a) ..	48,726	53,050	59,875	65,371	71,419
Victoria	39,110	45,583	50,764	53,961	58,119
Queensland	15,377	16,702	19,106	19,291	22,154
South Australia	10,244	11,836	12,209	12,990	13,836
Western Australia	7,362	7,585	8,532	9,340	10,785
Tasmania	3,151	3,355	3,989	4,292	4,567
Total	123,970	138,111	154,475	165,245	180,880

GROSS CLAIMS OR LOSSES, LESS AMOUNTS RECOVERABLE.					
New South Wales(a) ..	28,888	32,753	35,390	39,753	44,688
Victoria	23,081	26,542	28,603	30,854	33,417
Queensland	8,717	10,707	11,110	12,381	13,702
South Australia	5,441	6,208	5,898	6,639	7,127
Western Australia	4,064	4,678	4,618	5,489	6,206
Tasmania	1,655	1,644	2,017	2,113	2,701
Total	71,846	82,532	87,636	97,229	107,841

(a) Excludes Workers' Compensation Insurance in coal-mining industry in New South Wales.

3. **Classes of Insurance.**—The following statement shows premiums and claims in respect of the principal classes of risks, for the years 1955-56 to 1959-60:—

FIRE, MARINE AND GENERAL INSURANCE: PREMIUMS AND CLAIMS—
PRINCIPAL CLASSES OF RISK, AUSTRALIA.
(£'000.)

Class of Risk.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
GROSS PREMIUMS, LESS REINSURANCES AND RETURNS.					
Fire	25,807	27,919	29,854	30,642	31,887
Workers' Compensation(a) ..	25,660	28,976	33,772	34,805	38,876
Motor Vehicle—					
Compulsory Third Party ..	12,789	14,772	16,064	17,166	19,831
Other	32,659	37,851	42,127	43,827	48,939
Marine	7,179	6,916	7,292	7,646	8,033
Personal Accident	3,391	3,990	4,733	5,563	6,151
All other	16,485	17,687	20,633	25,596	27,163
Total	123,970	138,111	154,475	165,245	180,880

GROSS CLAIMS OR LOSSES, LESS AMOUNTS RECOVERABLE.					
Fire	7,191	9,037	9,406	9,370	10,104
Workers' Compensation(a) ..	20,383	23,515	24,473	27,391	29,154
Motor Vehicle—					
Compulsory Third Party ..	12,131	13,710	14,105	17,342	18,727
Other	21,924	25,452	27,459	28,405	32,416
Marine	2,878	3,130	3,258	2,999	3,311
Personal Accident	1,295	1,700	2,120	2,427	2,831
All other	6,044	5,988	6,815	9,295	11,298
Total	71,846	82,532	87,636	97,229	107,841

(a) Excludes Workers' Compensation in coal-mining industry in New South Wales.

E. RETAIL HIRE PURCHASE OPERATIONS OF FINANCE BUSINESSES.

1. **General.**—Information relating to hire purchase operations in Australia is given in the following tables. Information in more detail may be found in the annual bulletin—*Finance, Part I.—Public and Private Finance* and in monthly statements relating to hire purchase operations.

The statistics relate to businesses which finance the retail sale of goods, but do not retail goods themselves. These businesses cover public and private companies, partnerships and other types of finance businesses. Businesses which finance hire purchase exclusively for their own employees are not included. All types of goods sold to final purchasers are included whether producer goods (such as plant and machinery) or consumer goods.

2. **New Retail Agreements, 1959-60.**—Details of new retail agreements made during the year ended 30th June, 1960, are given in the following table.

**HIRE PURCHASE FINANCE COMPANIES: NEW RETAIL AGREEMENTS,
YEAR ENDED 30th JUNE, 1960.**

State.	Number of Agreements.				Value of Goods. (£'000.)(a)				Amount Financed. (£'000.)(b)			
	Motor Vehicles, Tractors, etc.(c)	Plant and Machinery. (d)	Household and Personal Goods. (e)	Total.	Motor Vehicles, Tractors, etc.(c)	Plant and Machinery. (d)	Household and Personal Goods. (e)	Total.	Motor Vehicles, Tractors, etc.(c)	Plant and Machinery. (d)	Household and Personal Goods. (e)	Total.
N.S.W.(f) ..	158,914	12,966	345,298	517,178	120,230	10,678	34,161	165,069	76,765	6,957	28,343	112,065
Victoria ..	123,268	9,061	179,766	312,095	96,313	6,793	20,085	123,191	63,546	4,565	16,476	84,587
Queensland ..	68,496	5,916	161,541	235,953	47,698	4,372	15,059	67,129	29,464	2,863	12,245	44,572
S.A.(g) ..	49,162	2,535	101,794	153,491	34,201	1,631	11,154	46,986	21,762	1,072	9,351	32,185
W.A. ..	30,898	2,811	46,676	80,385	22,123	2,271	5,196	29,590	13,891	1,435	4,209	19,535
Tasmania ..	15,912	997	16,000	32,909	11,001	757	1,478	13,236	6,763	503	1,156	8,422
Australia ..	446,650	34,286	851,075	1,332,011	331,566	26,502	87,133	445,201	212,191	17,395	71,780	301,366

(a) Value at net cash or list price (excluding hiring charges and insurance). (b) Excludes hiring charges and insurance.
 (c) Includes new and used motor cars, motor cycles, commercial vehicles, tractors, caravans, motor parts and accessories. (d) Includes farm machinery and implements, earthmoving equipment, aircraft, industrial plant and machinery, business machines and equipment (including commercial refrigeration equipment), etc. (e) Includes furniture and furnishings, domestic refrigerators, electrical goods, television and accessories, radios, musical instruments, bicycles and other household and personal goods. (f) Includes the Australian Capital Territory. (g) Includes the Northern Territory.

3. **Balances Outstanding on Retail Agreements at 30th June.**—Details of the balances outstanding on retail agreements at 30th June, 1956 to 1960, are given below:—

**HIRE PURCHASE FINANCE COMPANIES: BALANCES OUTSTANDING ON
RETAIL AGREEMENTS.**

(Including Hiring Charges and Insurance.)
(£'000.)

As at 30th June—	N.S.W. (a)	Vic.	Q'land.	S. Aust. (b)	W. Aust.	Tas.	Aust.
1956	79,100	56,369	32,266	21,618	15,388	8,163	212,904
1957	85,480	64,255	36,934	25,342	15,488	9,023	236,522
1958	111,872	84,652	42,483	28,688	19,052	9,928	296,675
1959	141,028	100,193	49,451	32,802	20,779	10,696	354,949
1960	163,808	118,493	59,721	42,922	25,169	11,835	421,948

(a) Includes the Australian Capital Territory.

(b) Includes the Northern Territory.

F. NEW CAPITAL RAISINGS BY COMPANIES IN AUSTRALIA.

1. **General.**—Information relating to capital raised by companies in Australia is given in the following tables. More detailed information may be found in the annual bulletin—*Finance Part I.—Public and Private Finance* and in quarterly bulletins dealing with capital raisings

The statistics (the collection of which commenced in July, 1954) relate to capital raised by companies through issues of shares, and in the case of listed companies through the issue of debentures, notes and similar securities and the acceptance of deposits, and in the case of unlisted companies, by way of loans secured over the entire assets of the company. Capital obtained by way of bank overdraft, trade credit, temporary advances, and loans secured over part only of the assets of the company is not included, and, in the case of unlisted companies, capital raised through loans not secured over any of the assets of the company is excluded.

Separate statistics are given for listed and unlisted companies. Listed companies are companies incorporated in Australia or the Australian territories and listed on one or more of the Australian stock exchanges. All other companies incorporated in Australia, including subsidiaries of listed companies, are classified as unlisted companies. Companies incorporated overseas, whether listed on an Australian stock exchange or not, are excluded from the statistics of share issues. However, subsidiaries of overseas companies, if incorporated in Australia, are included. The statistics of new capital raised through issues of debentures, notes, etc., and the acceptance of deposits, include, in addition to capital raised by Australian companies, capital raised in this way from Australian sources by overseas public companies through their Australian offices.

The following are explanatory notes relating to some of the items shown in the tables:—

New Money. This is the net amount of cash transferred from the investing public to the companies. For this purpose, the investing public includes banks and life insurance companies (except when subscribing to issues by associated companies), and government and private superannuation funds, but excludes other Government agencies. Subscriptions by associated companies, whether local or overseas, are excluded. In the tables which follow, the amount of new money is obtained by deducting from the total cash raised the "amount not involving a net transfer of funds from the investing public."

Amounts not involving new money. These amounts include cash subscriptions received by issuing companies from associated companies. Such subscriptions represent inter-company transfers only, and do not involve a receipt of funds from the "investing public". Also included are amounts which, although subscribed by the "investing public" (i.e. subscribers other than "associated companies"), are not retained by the issuing company or its associates, but are used to redeem shares, debentures or unsecured notes, etc., or are used to purchase from individuals existing shares, debentures, etc., in other companies, including existing shares, etc., in associated and subsidiary companies. The funds used in this way are thus returned to another section of the "investing public", and do not represent a net transfer of cash from the "investing public" to the companies. (Besides these purchases of existing shares, etc., from individuals, purchases of existing shares, etc., from companies other than associates of the issuing company might also be included in this item, but the amounts involved are small and separate details have not been collected.)

2. **Listed Companies.**—Details of new capital raised through issues of shares, debentures, or registered notes, or accepting deposits are given in the following table for each of the years 1955-56 to 1960-61:—

LISTED AUSTRALIAN COMPANIES(a): NEW CAPITAL RAISED THROUGH ISSUES OF SHARES, DEBENTURES, OR REGISTERED NOTES, ETC.(b), OR ACCEPTING DEPOSITS(c). (£ million.)

Year.	Share Capital.						Debentures, Registered Notes and Deposits.		
	Value of Issues Commenced.	Non-Cash Issues Commenced. (d)	Cash Issues Commenced.	Cash Raised During Period. (e)	Amounts Not Involving New Money.	New Money.	Total Amount Raised. (f)	Amounts Not Involving New Money. (f)	New Money.
1955-56 ..	104.7	35.7	69.0	68.0	8.8	59.2	119.8	69.8	50.0
1956-57 ..	110.4	57.7	52.7	51.0	7.3	43.7	143.1	92.1	51.0
1957-58 ..	105.1	56.2	48.9	50.3	15.1	35.2	208.9	130.6	78.3
1958-59 ..	99.6	41.1	58.5	57.7	9.0	48.7	308.2	168.7	139.5
1959-60 ..	158.4	96.6	61.8	62.0	14.3	47.7	407.7	213.2	194.5
1960-61(g) ..	258.8	125.7	133.1	123.2	27.9	95.3	422.1	306.4	115.7

(a) Includes companies incorporated in the Australian Territories.

(b) Includes convertible notes.

(c) Deposits accepted by banks, life assurance companies, pastoral companies, building societies and loans to authorized dealers in the short term money market are not included.

(d) Includes bonus issues, conversion issues, issues in exchange for existing shares, etc.

(e) Amounts paid up on issues commenced during the year plus calls on issues commenced in earlier years.

(f) Includes conversions, renewals, etc.

(g) Preliminary estimates.

3. **Unlisted Companies.**—Details of new capital raised by unlisted companies through issues of shares and loans secured by charges over the companies' entire assets are given in the following table for each of the years 1955-56 to 1959-60.

UNLISTED COMPANIES(a): NEW CAPITAL RAISED THROUGH ISSUES OF SHARES AND LOANS SECURED BY CHARGES OVER THE COMPANIES' ENTIRE ASSETS.

(£ million.)

Year.	Share Capital.						Loans secured by charges over the Companies' Entire Assets.		
	Value of Issues Commenced.	Non-Cash Issues Commenced. (b)	Cash Issues Commenced.	Cash Raised During Period. (c)	Amounts Not Involving New Money.	New Money.	Total Amount Raised. (d)	Amounts Not Involving New Money. (d)	New Money.
1955-56	144.8	54.7	90.1	86.2	55.9	30.3	7.7	1.9	5.8
1956-57	131.4	58.1	73.0	69.4	41.8	27.6	6.6	1.9	4.7
1957-58	151.2	81.2	70.0	64.8	43.7	21.1	8.7	4.4	4.3
1958-59	175.1	94.6	80.5	70.0	51.9	18.1	18.8	6.3	12.5
1959-60	224.7	107.6	117.1	104.9	69.4	35.5	27.9	16.9	11.0

(a) Excludes companies incorporated in the Northern Territory and Australian External Territories.
 (b) Includes bonus issues, conversion issues, issues in exchange for existing shares, etc. (c) Amounts paid up on issues commenced during year plus calls on issues commenced in previous years.
 (d) Includes conversions, renewals, etc.

4. **Listed and Unlisted Companies.**—A summary of new money raised by listed and unlisted companies during each of the years 1955-56 to 1959-60 as shown in the preceding tables is given below.

LISTED AND UNLISTED COMPANIES: NEW MONEY RAISED.

(£ million.)

Year	Listed Companies.			Unlisted Companies.			Grand Total.
	Share Capital.	Debentures, Registered Notes and Deposits, etc.	Total.	Share Capital.	Loans Secured by Charges over the Companies' Entire Assets.	Total.	
1955-56	59.2	50.0	109.2	30.3	5.8	36.1	145.3
1956-57	43.7	51.0	94.7	27.6	4.7	32.3	127.0
1957-58	35.2	78.3	113.5	21.1	4.3	25.4	138.9
1958-59	48.7	139.5	188.2	18.1	12.5	30.6	218.8
1959-60	47.7	194.5	242.2	35.5	11.0	46.5	288.7
1960-61(a)	(a) 95.3	(a) 115.7	(a) 211.0	(b)	(b)	(b)	(b)

(a) Preliminary estimates.

(b) Not yet available.

G. RURAL ADVANCES OF PASTORAL FINANCE COMPANIES.

The following table is derived from returns supplied to the Reserve Bank by major pastoral finance companies, and shows the total rural advances outstanding at the end of June, 1956 to 1959, and of subsequent quarters to June, 1960.

RURAL ADVANCES OF PASTORAL FINANCE COMPANIES(a).

(Source: Reserve Bank of Australia.)

(£ million.)

At end of—	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia and Tasmania.	Total.
June, 1956 ..	21.1	15.1	15.5	11.8	10.7	74.3
„ 1957 ..	24.0	15.7	14.2	12.8	13.3	80.1
„ 1958 ..	28.4	14.5	20.0	14.4	15.6	92.9
„ 1959 ..	26.5	16.0	21.2	13.4	14.2	91.3
September, 1959 ..	29.9	18.7	22.6	13.6	14.8	99.5
December, 1959 ..	29.1	18.4	23.6	12.3	12.9	96.2
March, 1960 ..	28.7	17.6	23.2	13.2	13.4	96.1
June, 1960 ..	29.6	17.7	24.3	14.9	15.4	101.9

(a) Compiled from returns supplied by major pastoral finance companies. Advances are classified according to the location of the branch holding the advance, which in some cases may differ from the State of residence of the borrower. The statistics refer to the total advances outstanding at the end of the month shown.

H. SHORT TERM MONEY MARKET.

1. General.—For some years prior to 1959, leading stockbrokers had been actively engaged in the acceptance of short term funds against the security of Government securities, but their operations were limited by the absence of suitable short term securities and their liquidity requirements.

In February, 1959, the Commonwealth Bank (now the Reserve Bank) gave official status to the market by announcing that under certain conditions it would act as lender of last resort to authorized dealers in the short term money market.

The form of organization so far developed consists of several companies authorized to act as dealers in the market. These dealers accept loans overnight, at call or for fixed periods in amounts of at least £25,000, and invest the funds in "money market securities", which have been defined as Commonwealth Government securities with currencies not exceeding three years.

Dealers are required to provide for a minimum capitalization and, in addition, to lodge with the Bank part of their capital in the form of money market securities as general backing for their operations. These lodgments which are referred to as "margins" are required to be equivalent on market values to at least:—(a) one per cent. of the total holdings by the dealer of securities maturing in one year; (b) two per cent. of the total holding by the dealer of securities maturing within one to two years; and (c) four per cent. of the total holding by the dealer of securities maturing within two to three years.

The Bank approves for each dealer the maximum portfolio of money market securities which may be carried and establishes a line of credit in favour of the dealer to the extent of that approved maximum portfolio. Under the line of credit, which is subject to renewal from time to time, the dealer may borrow in the last resort from the Bank against lodgment of security.

2. **Selected Assets and Liabilities of Authorized Dealers and Rates of Interest on Loans Accepted.**—In the following table, details of selected assets and liabilities of authorized dealers and the interest rates on loans accepted by dealers are given for each month January to December, 1960:—

SHORT TERM MONEY MARKET: SELECTED ASSETS AND LIABILITIES OF AUTHORIZED DEALERS.

(Source: Reserve Bank of Australia.)

Period.	Liabilities to Clients.			Holdings of Common- wealth Government Securities. (at face value).	Interest Rates on Loans accepted during Month.			
	All Cheque- paying Banks.	Other Clients.	Total.		At Call.		For Fixed Periods.	
					Minimum per cent. per annum.	Maximum per cent. per annum.	Minimum per cent. per annum.	Maximum per cent. per annum.
Average of Weekly Figures—£ million.								
1960—								
January ..	34.6	40.9	75.5	77.1	2.44	3.00	2.75	3.25
February ..	32.8	44.2	77.0	78.6	2.50	3.06	2.75	3.38
March ..	31.4	49.0	80.4	82.0	2.69	3.19	2.81	3.38
April ..	25.8	51.2	77.0	78.9	2.88	3.25	2.94	3.44
May ..	28.3	52.1	80.4	82.4	2.94	3.38	3.13	3.50
June ..	27.2	52.7	79.9	82.3	2.75	3.50	3.00	3.50
July ..	24.1	54.0	78.1	80.9	2.88	3.75	3.19	3.75
August ..	26.0	54.5	80.5	82.5	2.88	3.94	3.13	3.90
September ..	24.9	64.1	89.0	91.3	2.81	4.50	3.50	4.50
October ..	21.9	71.4	93.3	95.3	2.50	4.15	3.31	4.13
November ..	22.1	75.3	97.4	99.9	2.44	4.25	3.00	4.25
December(a)	27.1	69.4	96.5	100.0	2.50	4.50	3.50	4.38

(a) Excludes one Wednesday in December.

I. FRIENDLY SOCIETIES.

1. **General.**—The total membership of friendly societies in Australia is about 450,000, but as certain benefits, such as medical attendance and free medicines, and in many cases funeral expenses, are granted to members' families as well as to members themselves, this figure must be more than doubled to arrive at an estimate of the number of persons who receive some direct benefit from these societies, even when due allowance is made for young and unmarried members. Legislation has conferred certain privileges on friendly societies, but, on the other hand, it insists on their registration, and it is the duty of the Registrars in the various States, prior to registering a new society, to see that its proposed rules conform to the law, and that the scale of contribution is sufficient to provide the promised benefits. Societies are obliged to forward to the Registrar annual returns about their membership and their finances, and reports are published in most of the States dealing with the returns received.

2. **Societies, Members and Revenue.**—The following table sets out the number of societies, members, etc., revenue and expenditure, and funds of registered societies for the year 1958–59. More detailed information is available in the bulletins *Finance, Part I.—Public and Private Finance*, and issue No. 50, 1958–59, contains particulars for the year 1957–58.

FRIENDLY SOCIETIES(a), 1958-59.

Particulars.	New South Wales. (b)	Victoria. (c)	Queensland.	South Australia.	Western Australia.	Tasmania. (c)	Total.
	No.	No.	No.	No.	No.	No.	No.
Registered Societies	39	146	23	14	12	12	246
Branches	1,962	1,253	477	611	266	133	4,702
Benefit members at end of year ..	146,495	167,144	50,413	53,114	19,753	8,557	445,476
Average benefit members during year ..	146,825	168,129	50,865	53,648	20,125	8,875	448,467
Members who received sick pay ..	(d)	32,756	9,635	10,365	3,260	1,897	(d)
Total weeks sick pay granted ..	(d)	459,496	135,508	167,167	56,931	27,482	(d)
Average weeks per member sick ..	(d)	14.0	14.1	16.1	17.5	14.5	(d)
Deaths of benefit members ..	(d)	2,868	1,072	1,088	304	319	(d)
Proportion of deaths per 1,000 members (average)	(d)	17.1	21.1	20.3	15.1	35.9	(d)
Revenue—	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
Entrance fees, levies and members' contributions	2,344	1,972	547	956	489	30	6,338
Interest, dividends and rents ..	381	515	155	236	57	34	1,685
All other revenue	171	72		33	23	8	
Total	2,896	2,559	702	1,225	569	72	8,023
Expenditure—							
Sick pay	212	273	85	82	26	13	691
Medical attendance and medicine ..	1,624	1,076	317	378	399	5	3,799
Sums payable at death	148	78	53	59	19	23	380
Administration	533	452	165	208	56	17	1,431
All other expenditure	145	205		328	26	8	712
Total	2,662	2,084	620	1,055	526	66	7,013
Total Funds	9,081	11,226	3,529	4,977	1,568	689	31,070

(a) Excludes juvenile branches, dispensaries, medical institutes and certain miscellaneous societies. Receipts and payments of subsidy under the Commonwealth medical and hospital benefit schemes are excluded. (b) Includes the Australian Capital Territory. (c) Year 1959. (d) Not available.

J. PROBATES AND LETTERS OF ADMINISTRATION.

The following table gives some particulars of the number and value of estates of deceased persons in each State for the latest year for which information is available. Owing to differences in legislation in the various States, the figures are not entirely comparable.

PROBATES AND LETTERS OF ADMINISTRATION.

Particulars.	New South Wales. 1958-59. (a)	Victoria. 1959.	Queensland. 1958-59.	South Australia. 1959.	Western Australia. 1959.	Tasmania. 1958. (b)
Probates—						
Estates	No. 20,627	(c)	1,983	3,248	2,112	1,050
Gross Value	£'000 (c)	(c)	43,906	21,911	13,502	7,112
Net Value	£'000 108,550	(c)	(c)	20,646	12,103	6,593
Letters of Administration—						
Estates	No. (c)	(c)	145	811	256	234
Gross Value	£'000 (c)	(c)	3,036	2,263	861	731
Net Value	£'000 (c)	(c)	(c)	2,014	738	635
Total—						
Estates	No. (c)	15,167	2,128	4,059	2,368	1,284
Gross Value	£'000 (c)	87,484	46,943	24,174	14,363	7,843
Net Value	£'000 (c)	84,068	(c)	22,660	12,840	7,228

(a) Total estates of deceased persons assessed for death duty. (b) Estates dealt with by the Taxation Department. (c) Not available.

K. LOTTERIES AND BETTING.

§ 1. Lotteries.

State Governments operate lotteries in New South Wales, Queensland and Western Australia. Tattersall Lotteries and Tasmanian Lotteries are operated under Government licences in Victoria and Tasmania respectively. In general, revenue derived by the State Governments from these lotteries is used directly or indirectly to provide funds for expenditure on hospitals, charities, etc. For information as to the origin, purpose and method of payment of proceeds or taxes to State revenues *see* Official Year Book No. 46, page 808 and earlier issues of this Year Book.

Details of ticket sales, prizes allotted, and taxes paid and other net contributions to State Government revenues, relating to lotteries drawn during each of the years ended 30th June, 1956 to 1960, are given in the following table.

**LOTTERIES: VALUE OF TICKET SALES, PRIZES ALLOTTED, TAXES PAID
AND OTHER NET CONTRIBUTIONS TO STATE GOVERNMENT REVENUES.**

(£'000.)

Year ended 30th June.	New South Wales.	Victoria.	Queens- land.	Western Australia.	Tasmania.	Total.
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TICKET SALES.

1956	11,728	8,850	6,045	1,112	3,875	31,610
1957	12,830	9,200	6,175	1,163	3,525	32,893
1958	14,150	8,950	6,725	1,150	1,427	32,402
1959	13,598	8,750	6,760	1,138	796	31,042
1960	14,505	9,300	6,510	1,263	472	32,050

PRIZES ALLOTTED.

1956	7,472	5,310	3,863	605	2,359	19,609
1957	8,211	5,520	3,946	654	2,146	20,477
1958	9,087	5,370	4,285	640	868	20,250
1959	8,725	5,250	4,308	628	485	19,396
1960	9,292	5,570	4,149	698	287	19,996

TAXES PAID AND OTHER NET CONTRIBUTIONS TO STATE GOVERNMENT REVENUES.

1956	3,842	2,744	1,798	362	1,129	9,875
1957	4,184	2,852	1,822	353	1,027	10,238
1958	4,593	2,775	1,895	353	415	10,031
1959	4,326	2,713	1,902	352	232	9,525
1960	4,661	2,883	1,774	392	144	9,854

§ 2. Betting.

Estimates of totalizator investments and investments with licensed bookmakers for the years ended 30th June, 1956 to 1960, are given in the following table:—

TOTALIZATOR INVESTMENTS AND INVESTMENTS WITH LICENSED BOOKMAKERS.
(£'000.)

Year ended 30th June—	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total.
TOTALIZATOR INVESTMENTS.(a)							
1956	13,645	10,669	2,530	2,267	2,263	1,004	32,378
1957	13,213	11,573	2,361	2,172	2,177	976	32,472
1958	13,831	11,740	2,579	2,236	2,498	944	33,828
1959	14,340	11,532	2,771	2,014	2,018	823	33,498
1960	14,691	13,198	2,623	2,294	2,263	793	35,862
INVESTMENTS WITH LICENSED BOOKMAKERS.(b)							
1956	113,225	52,000	(c)	30,019	(d) 24,012	11,577	(c)
1957	113,170	52,715	(c)	29,932	25,564	11,505	(c)
1958	113,147	64,250	(c)	28,335	27,005	12,031	(c)
1959	100,201	62,150	(c)	26,366	24,385	11,103	(c)
1960	110,792	71,600	(c)	27,269	25,032	11,884	(c)

(a) Estimated from taxes on totalizators.
(c) Not available.

(b) Estimated from taxes on betting with licensed bookmakers.
(d) Eleven months ended 30th June, 1956.

L. PENSION AND SUPERANNUATION SCHEMES.

§ 1. Government and Semi-Governmental Pension and Superannuation Schemes.

The Commonwealth and all State Governments have established pension or superannuation schemes for their employees. These schemes are operated through funds to which both the Government and the employees make contributions. Employees of semi-governmental authorities are in some cases covered by the Commonwealth or State Government scheme and in other cases by a separate scheme of the authority.

In the following tables, aggregate details are given, for the year 1959–60, of the receipts, expenditure, accumulated funds and number of contributors and pensioners of the Commonwealth and State Government and main semi-governmental schemes. The funds included are:—

- (a) *Commonwealth*.—The Superannuation Fund and Defence Forces Retirement Benefits Fund.
- (b) *New South Wales*.—State Superannuation Fund, Government Railways Superannuation Fund and Police Superannuation and Reward Fund.
- (c) *Victoria*.—The State Superannuation Fund, Police Superannuation Fund, Police Pensions Fund, Melbourne Harbor Trust Superannuation Account, Geelong Harbor Trust Superannuation Fund, Melbourne and Metropolitan Board of Works Superannuation Fund, State Electricity Commission Provident Fund, Gas and Fuel Corporation Superannuation Fund, Metropolitan Fire Brigades Board Superannuation Fund, Country Fire Authority Superannuation Fund, Port Phillip Pilots' Sick and Superannuation Fund, and Married Women Teachers' Pension Fund.
- (d) *Queensland*.—Public Service Superannuation Fund and Police Superannuation Fund.
- (e) *South Australia*.—South Australia Superannuation Fund, Police Pensions Fund and Public Service Superannuation Fund.
- (f) *Western Australia*.—The Superannuation Fund.
- (g) *Tasmania*.—Public Service Superannuation Fund (Old and New Funds), Police Provident Fund and State Teachers' Superannuation Fund.

GOVERNMENT AND SEMI-GOVERNMENTAL PENSION AND SUPERANNUATION SCHEMES, 1959-60.

Particulars.	C'wth.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
Receipts—								
Contributions—								
Employees ..	10,732	4,445	3,935	1,197	1,109	559	513	22,490
Government ..	6,592	10,025	5,636	1,092	1,089	874	416	25,724
Interest ..	3,532	4,200	2,534	414	686	264	222	11,852
Other ..	..	6	83	14	7	1	4	115
Total ..	20,856	18,676	12,188	2,717	2,891	1,698	1,155	60,181
Expenditure—								
Pension Payments ..	8,184	8,838	5,743	685	1,424	958	486	26,318
Gratuities or Rewards ..	400	66	127	..	..	..	6	599
Refund of Contributions ..	1,187	735	382	165	123	48	75	2,715
Other ..	350	80	6	..	80	..	11	527
Total ..	10,121	9,719	6,258	850	1,627	1,006	578	30,159
Funds at end of Year ..	84,822	88,031	57,179	10,439	15,090	6,089	5,095	266,745
Contributors at end of Year—								
Males ..	No. (a)	No. (a)	No. (a)	No. (a)	No. (a)	No. (a)	No. (a)	No. (a)
Females ..	(a)	91,096	50,926	13,018	13,542	9,129	6,327	(a)
Total ..	(a)	91,096	7,488	5,056	1,596	643	2,211	(a)
Pensioners at end of Year—								
Males ..	(a)	(a)	9,554	1,214	2,967	2,479	941	(a)
Female ex-employees ..	(a)	26,448	1,274	350	518	234	213	(a)
Widows ..	(a)	(a)	6,785	325	2,439	1,597	625	(a)
Children ..	(a)	(a)	658	52	250	156	118	(a)
Total ..	(a)	26,448	18,271	1,941	6,174	4,466	1,897	(a)

(a) Not available—for year 1958-59 contributors to Commonwealth fund numbered 149,018 and pensioners 20,354.

For details of the individual funds summarized above see *Finance, Part I, Public and Private Finance*, Bulletin No. 51 issued by this Bureau.

§ 2. Parliamentary Pension and Superannuation Schemes.

Pension and superannuation schemes have been established for members of the Commonwealth and State Parliaments. Details of these schemes, except for Tasmania, are given in pages 91 to 99 of Official Year Book No. 38. Details of the Tasmanian scheme, are given on page 72 of Official Year Book No. 44. All the schemes are operated through funds to which the members of Parliament and the Commonwealth or States contribute. Details of the receipts, expenditure, funds and number of contributors and pensioners for the year 1959-60 are shown in the following table:—

PARLIAMENTARY PENSION AND SUPERANNUATION SCHEMES, 1959-60.

Particulars.	C'wth.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
	£	£	£	£	£	£	£	£
Receipts—								
Contributions—								
Members ..	397,323	26,572	15,582	14,804	5,746	10,384	8,377	478,788
Government ..	199,594	14,260	27,016	14,804	11,746	10,862	1,549	279,831
Interest ..	72,691	5,745	..	14,167	4,811	2,932	753	101,099
Other ..	3,986	..	..	..	..	..	..	3,986
Total ..	673,594	46,577	42,598	43,775	22,303	24,178	10,679	863,704
Expenditure—								
Pension Payments(a) ..	286,904	25,195	42,598	6,403	11,531	11,018	8,579	392,228
Refund of Contributions ..	4,219	..	..	1,942	293	..	689	7,143
Other ..	..	..	..	300	80	..	133	513
Total ..	291,123	25,195	42,598	8,645	11,904	11,018	9,401	399,884
Funds at end of Year ..	382,471	136,149	..	305,053	114,782	67,905	19,379	1,025,739
Contributors at end of Year—								
Pensioners at end of Year—	No. (c)	No. 96	No. 100	No. 74	No. 59	No. 80	No. 54	No. (c)
Ex-members ..	(c)	28	(b)	31	13	21	8	(c)
Widows ..	(c)	21	(b)	..	9	18	4	(c)
Total ..	(c)	49	(b)	31	22	39	12	(c)

(a) Including lump sum payments. (b) Not available. (c) Not available—for year 1958-59 contributors to Commonwealth Parliamentary scheme numbered 184 and pensioners 61.

§ 3. Private Pension and Retiring Allowance Schemes.

Special surveys have been conducted by this Bureau on superannuation or pension and retiring allowance schemes conducted under private enterprise, and the results were published in a series of Special Business Surveys, Nos. 7, 9, 11 and 12, relating to the years 1951-52, 1955-56, 1955-56 to 1957-58, and 1955-56 to 1958-59 respectively.

CHAPTER XXI.

PUBLIC FINANCE.

NOTE.—The subject of "Public Finance" is dealt with in this chapter under the two major divisions of Commonwealth Finance and State Finance. The close financial relations between the Commonwealth and States, however, particularly since the Financial Agreement has been in operation, demand also a combination of these two divisions under the heading of Commonwealth and State Finance. Under the Financial Agreement, the Commonwealth assumed the liability to bondholders for the States' Securities existing at the date of the Agreement and now arranges for all borrowings for and on behalf of the Commonwealth or any State and for all conversions, renewals, redemptions and consolidations of such securities. In view of this, it is convenient to deal with the Commonwealth and State Government Securities on Issue in a separate division of this chapter (D, page 853).

The subject of income taxes is also dealt with in a separate division (E, page 871).

For further detailed information on the subjects covered by this chapter, *see* the annual bulletins *Finance, Part I.—Public and Private Finance* and *Part II.—Commonwealth Taxation* published by this Bureau. Current information in summarized form is contained in the *Quarterly Summary of Australian Statistics*, the *Monthly Review of Business Statistics*, and the *Digest of Current Economic Statistics*.

A. COMMONWEALTH FINANCE.

§ 1. General.

1. **Financial Provisions of the Constitution.**—The main provisions of the Constitution relating to the initiation and development of the financial system of the Commonwealth are contained in Sections 81 to 105A of the Commonwealth Constitution (*see* pp. 17–20 of this Year Book). Two other sections which have a most important bearing on questions of Commonwealth finance are Sections 69 and 51.

Section 69 provides for the transfer from the States to the Commonwealth of certain specified departments, and Section 51, in outlining the powers of the Commonwealth Parliament, implies the transfer or creation of other departments. Sections 87 and 96 deal with the financial relations between the Commonwealth and the States. These matters have been treated in previous issues of the Official Year Book and on pages 829–36 of this issue a summary is given of the present provisions for Commonwealth financial assistance to the States.

The majority of the tables relating to Commonwealth Finance have been compiled from the annual Budget Papers as presented to Parliament by the Treasurer of the Commonwealth.

2. **Accounts of the Commonwealth Government.**—The Commonwealth Government bases its accounts upon three funds, the Consolidated Revenue Fund, the Trust Fund and the Loan Fund.

§ 2. Commonwealth Consolidated Revenue Fund.

A. NATURE OF FUND.

1. **Provisions of the Constitution.**—The provisions made for the establishment of a Commonwealth Consolidated Revenue Fund, and the means to be adopted for operating on the fund, are contained in Sections 81 to 83 of the Constitution (*see* p. 17 of this Year Book).

2. **Annual Results of Transactions.**—In the early 1920's, receipts and expenditure of the Consolidated Revenue Fund each ranged between £60 million and £70 million. After allowing for special appropriations, amounting to one or two million pounds each year,

utilized for a variety of purposes, e.g., for debt redemption, naval construction, main roads, science and industry investigations, prospecting for oil and precious metals, civil aviation, etc., the receipts and expenditure of the Fund were balanced. In the later twenties and early thirties, when receipts and expenditure were each about £70 million or £80 million a year, there were annual deficits which had accumulated to more than £17 million by the end of 1930–31.

In the years 1931–32 to 1938–39, receipts and expenditure each ranged from £70 million to £95 million and were in balance after allowing for special appropriations of up to £3.5 million a year for reduction of the accumulated deficit, non-recurring grants to the States, post office works and the provision of defence equipment. The amount applied towards reduction of the accumulated deficit was approximately £1.5 million and the balance of the deficit (approximately £15.7 million) was funded in 1937–38.

For most of the 1939–45 War years and thereafter, the Consolidated Revenue Fund was balanced, all available revenue after meeting expenditure on ordinary services being used for defence, war and repatriation purposes.

During the years 1955–56 to 1959–60, the Fund was balanced after special payments of £61.6 million, £194.8 million, £104.4 million, £27.9 million and £41.4 million to the Loan Consolidation and Investment Reserve Trust Account. The amounts so transferred were subsequently invested wholly or partly in special loans for State works requirements.

B. REVENUE.

1. General.—The following table shows details of the revenue from each source and the amount per head of population under each of the main headings during the years 1955–56 to 1959–60. Taxation constitutes the main sources of Commonwealth revenue, accounting for 86.9 per cent. in 1959–60.

COMMONWEALTH CONSOLIDATED REVENUE FUND: SOURCES OF REVENUE. (£'000.)

Source:	1955–56.	1956–57.	1957–58.	1958–59.	1959–60.
<i>Taxation</i>	<i>1,003,780</i>	<i>1,098,736</i>	<i>1,161,533</i>	<i>1,133,298</i>	<i>1,249,790</i>
Per head of Population	£107 15 0	£115 4 8	£119 3 8	£113 17 5	£122 18 0
<i>Business Undertakings</i>	<i>87,821</i>	<i>99,803</i>	<i>108,228</i>	<i>116,896</i>	<i>137,238</i>
Per head of population	£9 8 7	£10 9 4	£11 2 1	£11 14 11	£13 9 11
<i>Territories(a)</i>	<i>2,249</i>	<i>2,513</i>	<i>2,845</i>	<i>3,189</i>	<i>4,198</i>
Per head of population	£0 4 10	£0 5 3	£0 5 10	£0 6 5	£0 8 3
<i>Other Revenue—</i>					
Interest, etc.	14,179	13,475	10,920	11,572	12,504
Coinage	199	693	223	149	415
Defence	3,820	3,763	5,776	6,185	5,832
Atomic Energy Commission ..	30				
Civil Aviation	1,159	1,262	1,472	1,497	1,872
Health	94	90	105	92	106
Patents, Trade Marks, etc. ..	267	306	318	351	399
Bankruptcy	60	72	98	98	113
Shipping and Transport	329	914	1,128	621	2,645
Net Profit on Australian Note Issue	7,866	10,054	12,592	10,935	10,516
Surplus Balances of Trust Accounts	1,981	69,782	3,991	5,722	5,674
Australian Shipping Board Transfer of Surplus Funds	3,000	..	..	..	..
Joint Coal Board—Repayment of Advances	2,488	750	1,100	143	..
Tea Importation Board—Repayment of Advance	2,000	..	..	..	..
Other	7,036	9,622	(b) 13,442	(b) 5,302	(b) 6,984
<i>Total</i>	<i>44,508</i>	<i>110,783</i>	<i>51,165</i>	<i>42,667</i>	<i>47,060</i>
Per head of population	£4 15 7	£11 12 5	£5 5 0	£4 5 9	£4 12 7
<i>Grand Total</i>	<i>1,138,358</i>	<i>1,311,835</i>	<i>1,323,771</i>	<i>1,296,050</i>	<i>1,438,286</i>
Per head of population	£122 4 0	£137 11 8	£135 16 7	£130 4 6	£141 8 9

(a) Excludes Railways. (b) Includes 1957–58, £1,314,000; 1958–59, £989,000; 1959–60, £278,000—collections of Diesel Fuel Taxation subsequently refunded.

A graphical representation of the revenue and expenditure of the Commonwealth Consolidated Revenue Fund appears on page 831.

2. Taxation.—(i) *Total Collections.* (a) *Amount.* Collections under each heading for the years 1955–56 to 1959–60 are shown below:—

COMMONWEALTH TAXATION: TOTAL NET COLLECTIONS.

(£'000.)

Heading.	1955–56.	1956–57.	1957–58.	1958–59.	1959–60.
Customs	87,508	68,597	71,717	71,671	84,381
Excise	168,264	217,440	231,334	236,254	252,111
Sales Tax	110,001	125,752	137,777	143,617	164,185
Land Tax .. .. .	..	1	11	..	..
Pay-roll Tax	45,543	48,675	48,552	49,619	55,162
Income Taxes(a)	573,988	620,298	650,419	608,660	671,294
Estate Duty	10,120	12,712	13,774	13,309	13,753
Gift Duty	1,820	1,940	2,205	2,000	2,435
Entertainments Tax	—1	..	..	..	..
Special Industry Taxes(b)	6,537	3,321	5,744	8,168	6,469
Total Taxation	1,003,780.	1,098,736	1,161,533	1,133,298	1,249,790

(a) Includes Social Services Contribution, War-time (Company) Tax, Super Tax, Undistributed Profits Tax and Wool Deduction. (b) Used for purposes of industries concerned. The taxes are as follows:—Flour Tax, Wheat Tax, Wool Levy, Wool Contributory Charge, Wheat Export Charge, Miscellaneous Export Charges, Stevedoring Industry Charge, Tobacco Industry Charge and Gold Tax.

NOTE.—Minus sign (—) indicates an excess of refunds.

(b) *Proportion of each Class to Total Collections.* The following table shows the proportion of the total collections represented by returns from each class of taxation for the years 1955–56 to 1959–60:—

COMMONWEALTH TAXATION: PROPORTION OF EACH CLASS TO TOTAL NET COLLECTIONS.

(Per Cent.)

Heading.	1955–56.	1956–57.	1957–58.	1958–59.	1959–60.
Customs	8.7	6.2	6.2	6.3	6.8
Excise	16.8	19.8	20.0	20.9	20.2
Sales Tax	11.0	11.4	11.8	12.7	13.1
Land Tax .. .. .	..	..	..	..	..
Pay-roll Tax	4.5	4.4	4.2	4.4	4.4
Income Taxes(a)	57.2	56.5	56.0	53.7	53.7
Estate Duty	1.0	1.2	1.2	1.2	1.1
Gift Duty	0.2	0.2	0.2	0.2	0.2
Special Industry Taxes(b)	0.6	0.3	0.4	0.6	0.5
Total Taxation	100.0	100.0	100.0	100.0	100.0

(a) See note (a) to previous table.

(b) See note (b) to previous table.

(ii) *Customs Revenue.* The following table gives details of net customs receipts for the years 1955–56 to 1959–60:—

**COMMONWEALTH CUSTOMS REVENUE: CLASSIFICATION OF
NET RECEIPTS.**
(£'000.)

Classes.	1955–56.	1956–57.	1957–58.	1958–59.	1959–60.
Foodstuffs of animal origin	418	281	347	336	474
Foodstuffs of vegetable origin	1,305	1,392	1,546	1,512	1,784
Spirituous and alcoholic liquors	2,711	2,697	3,047	3,274	4,762
Tobacco, cigars and cigarettes	12,516	12,526	12,375	12,190	13,034
Animal substances (not foodstuffs)	3	7	5	5	7
Vegetable substances and fibres	240	196	222	182	259
Yarns, textiles and apparel	11,660	8,303	10,284	9,800	12,176
Oils, fats and waxes	18,933	11,543	10,039	11,123	10,970
Pigments, paints and varnishes	105	152	160	179	219
Rocks and minerals	1	24	35	24	56
Metals, metal manufactures and machinery ..	18,149	16,169	18,389	18,348	23,036
Rubber and leather and manufactures thereof	1,294	990	1,291	620	606
Wood and wicker, raw and manufactured ..	1,533	1,413	1,510	1,398	1,802
Earthenware, cement, china, glass and stone-ware ..	2,235	1,588	1,822	1,866	2,233
Pulp, paper and board, paper manufactures and stationery	1,166	748	848	940	1,426
Sporting materials, toys, fancy goods, jewellery and timepieces	2,792	1,779	2,165	2,297	2,825
Optical, surgical and scientific instruments, photographic goods	1,204	1,065	1,118	1,169	1,404
Chemicals, pharmaceutical products, essential oils and fertilizers	1,093	1,051	1,302	1,317	1,690
Miscellaneous goods	2,288	1,802	2,174	2,269	3,047
Primage	7,261	4,318	2,483	2,078	1,939
Other receipts	601	553	555	744	632
Total	87,508	68,597	71,717	71,671	84,381

(iii) *Excise Revenue.* Net excise receipts for the years 1955–56 to 1959–60 were as follows:—

COMMONWEALTH EXCISE REVENUE: CLASSIFICATION OF NET RECEIPTS.
(£'000.)

Particulars.	1955–56.	1956–57.	1957–58.	1958–59.	1959–60.
Beer	85,315	103,516	105,997	105,286	109,724
Spirits	7,325	8,138	8,047	8,692	8,683
Tobacco	14,849	17,270	16,633	15,207	14,366
Cigars and cigarettes	36,516	47,916	51,366	55,824	61,459
Cigarette papers	896	910	862	811	770
Petrol	21,190	37,183	41,711	44,253	49,255
Diesel Fuel .. ..	..	..	2,770	1,475	2,179
Matches	1,061	1,074	1,084	1,092	1,125
Playing cards	47	48	47	48	52
Coal	566	599	590	578	418
Miscellaneous	499	786	2,227	2,988	4,080
Total	168,264	217,440	231,334	236,254	252,111

(iv) *Other Taxation.* (a) *General.* Taxes other than customs and excise and the various export charges are, in general, assessed and collected by the Commissioner of Taxation. The organization comprises a Head Office in Canberra, an office in each State assessing the returns of taxpayers whose interests are restricted to that State only, and a Central Office situated in Melbourne assessing taxpayers whose interests are in more than one State.

For detailed statistics relating to Commonwealth income taxes, estate duty, gift duty and sales tax, see the annual bulletin *Finance, Part II.—Commonwealth Taxation* issued by this Bureau.

(b) *Sales Tax.* The sales tax was first imposed in August, 1930. The operation of the tax is controlled chiefly by a system of registration of taxpayers whereby all manufacturers and wholesale merchants, who are the taxpayers under the Act in respect of goods sold in Australia, must be registered with the Department. The tax on imports subject to sales tax is collected by the Customs Department at ports of entry.

Since the inception of the tax, certain exemptions have been allowed. These exemptions, which have been extended from time to time, relate mainly to goods of an essential nature or those for use in primary production. The most recent exemptions were those granted from 17th August, 1960.

A general rate of tax is levied on all goods other than those specified in the schedules to the Sales Tax (Exemptions and Classifications) Act 1935-1959. These schedules set out details of goods exempt from sales tax and those subject to special rates. The general and special rates which operated from 27th September, 1951, were:—

Period.	General Rate.	Special Rates.
27th September, 1951, to 6th August, 1952 ..	12½ per cent. ..	20, 25, 33½, 50 and 66⅔ per cent.
7th August, 1952, to 9th September, 1953 ..	12½ per cent. ..	20, 33½ and 50 per cent.
10th September, 1953, to 18th August, 1954 ..	12½ per cent. ..	16⅔ per cent.
19th August, 1954, to 14th March, 1956 ..	12½ per cent. ..	10 and 16⅔ per cent.
15th March, 1956, to 3rd September, 1957 ..	12½ per cent. ..	10, 16⅔, 25 and 30 per cent.
4th September, 1957, to 15th November, 1960 ..	12½ per cent. ..	8½, 16⅔, 25 and 30 per cent.
16th November, 1960, to 21st February, 1961 ..	12½ per cent. ..	8½, 16⅔, 25, and 40 per cent.
From 22nd February, 1961	12½ per cent. ..	8½, 16⅔, 25 and 30 per cent.

For particulars of rates applicable from the inception of Sales Tax in August, 1930, to 26th September, 1951, see Official Year Books No. 37, page 617 and No. 46, page 817.

Particulars of the net amount of sales tax payable, and the sales of taxable and exempt goods in each State for 1959-60, are given in the following table. The figures relate to sales during the period 1st July to 30th June. The figures for sales tax payable differ from those for net collections shown on page 811, because the latter include some adjustments in respect of earlier tax years and include only tax payable on returns lodged during the year, which in general cover sales for the period June to May.

SALES TAX AND AMOUNT OF SALES, 1959-60.

(£'000.)

Particulars.	N.S.W. (a)	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N. Terr.	Australia.
Net Sales on which Sales Tax was payable at—								
8½ per cent. ..	76,765	62,170	20,299	18,900	10,323	3,741	34	192,232
12½ per cent. ..	180,449	122,676	54,180	37,255	22,909	9,711	368	427,548
16⅔ per cent. ..	42,932	40,010	19,117	11,679	9,673	1,555	56	125,022
25 per cent. ..	43,392	27,533	11,983	10,016	6,282	1,515	20	100,741
30 per cent. ..	61,418	60,059	24,147	16,908	9,982	1,976	..	174,490
Total ..	404,956	312,448	129,726	94,758	59,169	18,498	478	1,020,033
Sales of Exempt Goods by Registered Persons ..	916,068	698,345	329,063	196,941	140,307	70,071	3,409	2,354,204
Total Sales of Taxable and Exempt Goods ..	1,321,024	1,010,793	458,789	291,699	199,476	88,569	3,887	3,374,237
Sales Tax Payable ..	65,378	52,084	21,890	15,755	9,912	2,757	63	167,839

(a) Includes the Australian Capital Territory.

Sales of taxable and exempt goods and sales tax payable for Australia as a whole are shown in the following table for the years 1955–56 to 1959–60:—

SALES TAX AND AMOUNT OF SALES.

(£'000.)

Year.	Net Sales on which Sales Tax was Payable.	Sales of Exempt Goods by Registered Persons.	Total Sales of Taxable and Exempt Goods.	Sales Tax Payable.
1955–56	798,774	1,856,865	2,655,639	111,469
1956–57	781,250	2,016,828	2,798,078	127,649
1957–58	849,347	2,105,688	2,955,035	138,259
1958–59	890,293	2,152,026	3,042,319	143,296
1959–60	1,020,033	2,354,204	3,374,237	167,839

In the foregoing tables, sales include goods transferred to stock for sale by retail, goods imported by persons other than registered taxpayers, and goods used in the business of the taxpayer. Exempt sales relate to goods exempted from sales tax under the Sales Tax (Exemptions and Classifications) Act 1935–1960. The figures shown do not represent the total sales of all commodities, as vendors trading in exempt goods only are not required to be registered and consequently the volume of their sales is not included in the statistics above. In addition, non-taxable sales (i.e., goods sold by one registered taxpayer to another registered taxpayer) are excluded.

(c) *Land Tax.* Commonwealth Land Tax was levied annually from 1910–11 to 1951–52 on the unimproved value of land. It was abolished from 1st July, 1952. For rates of tax payable from 1942–43 to 1951–52, see Official Year Book No. 40, 1954, page 669.

(d) *Pay-roll Tax.* The Pay-roll Tax Act 1941 and the Pay-roll Tax Assessment Act 1941–1942 imposed a pay-roll tax of 2½ per cent. on all wages and salaries in excess of £20 a week paid by an employer after 30th June, 1941. Employers who are liable for tax are required to register and to furnish a monthly return of all wages paid. These measures formed part of the Commonwealth scheme of child endowment, the revenue from the tax being designed to provide part of the money required. However, the collections now form part of the general revenues of the Commonwealth. For particulars of the present method of financing the National Welfare Fund, out of which Child Endowment is paid, see para. 6, page 826. The exemption was increased to £80 a week (£4,160 per annum) from 1st October, 1953, to £120 a week (£6,240 per annum) from 1st September, 1954, and to £200 a week (£10,400 per annum) from 1st September, 1957.

Receipts from pay-roll tax for the years 1955–56 to 1959–60 were—1955–56, £45,543,000; 1956–57, £48,675,000; 1957–58, £48,552,000; 1958–59, £49,619,000; and 1959–60, £55,162,000.

(e) *Income Taxes.* Details of taxes on income are given in division E of this chapter.

(f) *Wool Sales Deduction.* The Wool Sales Deduction scheme operated from 2nd December, 1950, until 17th November, 1951. For particulars, see Official Year Book No. 46, page 819.

(g) *Estate Duty.* The Commonwealth Estate Duty was first levied in 1914. Particulars of exemptions allowed and the rates imposed prior to November, 1957, are given in earlier issues of the Year Book (see No. 43, p. 758).

Under the Estate Duty Assessment Act 1914–1957, Estate Duty is assessed on the net value of the estate less a statutory exemption determined in accordance with the following formula:—(a) where the whole of the estate passes to the widow, children (including adopted

children, step-children and ex-nuptial children), or grand-children of the deceased, the sum of £5,000 decreasing by £1 for every £3 by which the value exceeds £5,000 and ceasing to apply at £20,000; (b) where no part of the estate passes to the widow, children or grand-children, the sum of £2,500 decreasing by £1 for every £3 by which the value exceeds £2,500 and ceasing to apply at £10,000; and (c) where part only of the estate passes to the widow, children or grand-children, the statutory exemption is to be calculated proportionately under (a) and (b).

An amendment to this Act, assented to on 20th November, 1957, provided for rebates of duty on estates which become liable for duty on two or more occasions within a period of five years.

The rates of duty levied under the Estate Duty Act 1914-1941 increase as the value of the estate increases, as follows:—£1 to £10,000, 3 per cent.; £10,001 to £20,000, 3 per cent. to 6 per cent.; £20,001 to £120,000, 6 per cent. to 26 per cent.; £120,001 to £500,000, 26 per cent. to 27.9 per cent.; over £500,000, 27.9 per cent.

Total collections for the years 1955-56 to 1959-60 were as follows:—1955-56, £10,120,000; 1956-57, £12,712,000; 1957-58, £13,774,000; 1958-59, £13,309,000; 1959-60, £13,753,000.

Particulars of the number and value of estates and duty assessed, for each of the assessment years 1954-55 to 1958-59, are given in the following table:—

ESTATE DUTY ASSESSMENTS.

Particulars.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Number of Estates	12,878	11,069	12,784	13,599	11,794
Gross Value Assessed £'000	176,853	178,361	213,253	227,310	202,899
Deductions £'000	30,136	31,281	37,376	39,707	35,589
Statutory Exemption £'000	23,290	23,802	28,661	30,492	26,555
Dutiable Value £'000	123,427	123,278	147,216	157,111	140,755
Duty Payable £'000	10,310	10,882	13,580	13,967	13,013
Average dutiable value £	9,584	11,137	11,516	11,553	11,934
Average duty per estate £	801	983	1,062	1,027	1,103

(h) *Gift Duty.* The Gift Duty Act 1941-1947 and the Gift Duty Assessment Act 1941-1957 impose a gift duty on all gifts made after the 29th October, 1941. A gift has been defined as any disposition of property which is made otherwise than by will without adequate consideration in money or money's worth. There is a liability on both the donor and the donee to furnish a return, and both are jointly and severally liable for payment of the duty.

The following rates of duty are levied under the Gift Duty Act 1941-1947 and relate to the value of all gifts made by the donor within a period of eighteen months:—Not exceeding £2,000, nil; £2,001 to £10,000, 3 per cent.; £10,001 to £20,000, 3 per cent. to 6 per cent.; £20,001 to £120,000, 6 per cent. to 26 per cent.; £120,001 to £500,000, 26 per cent. to 27.9 per cent.; £500,001 and over, 27.9 per cent.

An amendment which operated from 3rd June, 1947, provides that gift duty shall not exceed one-half of the amount by which the value of the gift exceeds £2,000.

Total receipts from gift duty for the years 1955-56 to 1959-60 were as follows:—1955-56, £1,820,000; 1956-57, £1,940,000; 1957-58, £2,205,000; 1958-59, £2,000,000; 1959-60, £2,435,000.

(i) *Entertainments Tax.* The Commonwealth levied an Entertainments Tax from 1st October, 1942, to 30th September, 1953. Details of rates are given in earlier issues of the Official Year Book (see No. 40, pp. 672 and 673).

(j) *Flour Tax.* Particulars of the rates of flour tax which operated from 4th December, 1933, to 21st December, 1947, are given in Official Year Book No. 37, pages 618 and 619. Because of the rise in wheat prices, the rate was declared to be nil as from 22nd December, 1947.

(k) *Wool Levy.* The Wool Tax Act 1936 and Wool Tax Assessment Act 1936 provided for a levy on all wool grown in Australia and shorn on or after 1st July, 1936. Details of this levy are given in earlier issues of the Official Year Book. This levy was suspended from 1st July, 1946, until 30th June, 1952, while the Wool Contributory Charge was imposed.

With the repeal of the Wool Contributory Charge, however, a levy on wool produced in Australia was re-introduced from 1st July, 1952. The Wool Tax Acts (Nos. 1 and 2) of 1952 provided for the payment of a levy of four shillings a bale until 30th June, 1953, after which date the rate of tax could be varied within prescribed limits. There was no variation until 1st July, 1957, when the rate was increased to six shillings a bale. The purpose of the tax is to provide funds for publicity and research previously provided by the Wool Contributory Charge. Collections during 1955–56, 1956–57, 1957–58, 1958–59 and 1959–60 were £851,000, £979,000, £1,328,000, £1,389,000 and £1,542,000 respectively.

(l) *Wool Contributory Charge.* The Wool (Contributory Charge) Act 1945 and the Wool (Contributory Charge) Assessment Act 1945 imposed a charge on all wool produced in Australia and sold, manufactured or exported. Wool sold by the Australian Wool Realization Commission was not liable to the charge. Details of the rate of the charge and collections made were given in earlier issues of the Official Year Book (see No. 40, p. 675).

The various Wool (Contributory Charge) Acts were repealed by the Wool Tax Assessment Act of 1952 and the charge superseded by the wool levy.

(m) *Wheat Export Charge and Wheat Tax.* A summary of the provisions of the Wheat Export Charge Acts 1946, 1948, 1952 and 1954 is contained in previous issues of the Official Year Book (see No. 40, p. 676, No. 41, p. 604 and No. 46, p. 820).

The Wheat Export Charge Act 1958 repealed the 1954 Wheat Export Charge Act and provided for an export charge on wheat and wheat products for the seasons 1958–59 to 1963–64 inclusive. The charge levied is the excess of the export price over the cost of production or 1s. 6d. per bushel whichever is the less. Under the Wheat Industry Stabilization Act 1958, to which the Wheat Export Charge is complementary, the Commonwealth Government guarantees a return to wheat-growers of the ascertained cost of production of up to 100 million bushels of wheat harvested each season exported from Australia. Collections from the wheat export charge are paid into the Wheat Prices Stabilization Fund, out of which payments will be made to the Australian Wheat Board, when required, for the purpose of building up the average export price for any season to the guaranteed price. If the fund is exhausted, additional payments will be made from the Consolidated Revenue Fund.

Collections of the wheat export charge amounted to £4,294,000 in 1955–56, nil in 1956–57, £443,000 in 1957–58, £1,211,000 in 1958–59 and £1,000 in 1959–60.

The Wheat Tax Act of 1957 imposed a tax of $\frac{1}{4}$ d. for each bushel of wheat—

- (a) which has been delivered to the Wheat Board on or after the first day of October, 1956, and before the date of commencement of the Act; or
- (b) which is delivered to the Wheat Board on or after that date.

The Act also provided that where, before the commencement of the Act, a person delivering to the Board wheat upon which tax is imposed by the Act authorized the Board to deduct an amount from the moneys payable to him and to pay the amount so deducted to a person, authority or association for the purposes of soil fertility research or other research likely to benefit the wheat industry, and the Board did so, the tax otherwise payable upon that wheat is to be reduced by the amount so deducted.

The Wheat Research Act 1957 provided for the establishment of a Wheat Research Trust Account to receive moneys payable under the Wheat Act 1957, and for the setting up of a Wheat Industry Research Council to direct the expenditure of moneys from that Trust Account for research, etc., to benefit the Wheat Industry.

Collections of Wheat Tax amounted to £185,000 in 1957–58, £207,000 in 1958–59 and £187,000 in 1959–60, and were paid to the Wheat Research Trust Account.

(n) *Miscellaneous Export Charges.* These consist of charges levied on exports of apples and pears (Apple and Pear Export Charges Act 1938–1960), canned fruits (Canned Fruits Export Charges Act 1926–1959), dairy produce (Dairy Produce Export Charges Act 1924–1937), dried fruits (Dried Fruits Export Charges Act 1924–1929), eggs (Egg

Export Charges Act 1947) and meat (Meat Export Charges Act 1935-1954) and on grapes used in the manufacture of wine (Wine Grapes Charges Act 1929-1954). The collections are paid into special funds to be applied, for the purposes of Export Boards established under various Acts, in controlling the quantity and quality of produce exported.

Collections for the last five years were as follows:—1955-56, £414,000; 1956-57, £375,000; 1957-58, £390,000; 1958-59, £566,000; and 1959-60, £540,000.

(o) *Stevedoring Industry Charge.* The Stevedoring Industry Charge Act 1947 and the Stevedoring Industry Charge Assessment Act 1947 imposed a charge of 4½d. a man-hour on the employer of a waterside worker after 22nd December, 1947.

The amounts received are paid to the Stevedoring Industry Board for the payment of attendance money to waterside workers and for other expenses of the Board.

Since 1947, the charge has been amended as follows:—11th October, 1949, a reduction to 2½d. a man-hour; 11th December, 1951, an increase to 4d. a man-hour; 28th October, 1952, an increase to 11d. a man-hour; 4th May, 1954, a reduction to 6d. a man-hour; 30th October, 1956, an increase to 1s. 7d. a man-hour; and from 21st May, 1957, an increase to 2s. a man-hour.

A further amendment under the Stevedoring Industry Charge Act 1958 which came into operation on 1st April, 1958, provided for an increase of the charge to 3s. a man-hour until 1st July, 1959, and a reduction to 2s. 6d. a man-hour on or after 1st July, 1959.

Collections during the years 1955-56 to 1959-60 were as follows:—1955-56, £973,000; 1956-57, £1,926,000; 1957-58, £3,337,000; 1958-59, £4,572,000; and 1959-60, £3,718,000.

(p) *Gold Tax.* Particulars of the Gold Tax which operated from 15th September, 1939, to 20th September, 1947, are given in Official Year Book No. 39, page 767.

(q) *Tobacco Industry Charge.* The Tobacco Charge Acts (Nos. 1, 2 and 3) 1955 and the Tobacco Charges Assessment Act 1955, which came into operation on 1st January, 1956, provided for charges on tobacco leaf grown in Australia.

The Tobacco Charge Act (No. 1) 1955 imposed a maximum charge of ½d. a pound on all Australian tobacco leaf sold to a manufacturer.

The Tobacco Charge Act (No. 2) 1955 imposed a charge at twice the rate to be levied under the Tobacco Charge Act (No. 1) on all Australian tobacco leaf purchased by a manufacturer.

The Tobacco Charge Act (No. 3) 1955 imposed a charge on all Australian tobacco leaf grown by a manufacturer and appropriated by him for manufacturing purposes. Where the manufacturer grew, in Australia, not less than nine-tenths of the tobacco leaf used by him in manufacturing, the charge was at the rate imposed by the Tobacco Charge Act (No. 1). In other cases, the charge was at twice that rate.

The charges collected under the Tobacco Charges Assessment Act 1955 were paid into the Tobacco Industry Trust Account which was established by the Tobacco Industry Act, 1955. Moneys in this account are used for the promotion of the tobacco industry.

Collections in 1955-56, 1956-57, 1957-58, 1958-59 and 1959-60 amounted to £5,000, £41,000, £61,000, £72,000 and £112,000 respectively.

(r) *Dairy Produce Levy.* The Dairy Produce Levy Act 1958 imposed a levy on the manufacture of butter and cheese for the purpose of financing a research and sales promotion scheme for the dairy industry. The maximum rates of the levy are fixed at three-sixteenths of a penny a pound on butter and three-thirty-seconds of a penny on cheese. In 1958-59 and 1959-60, collections amounted to £151,000 and £334,000.

(s) *Canning Fruit Charge.* The Canning Fruit Charge Act 1959 imposed a levy on apricots, peaches and pears accepted by canneries as of canning quality or for use in the production of canned fruit, for the purpose of promoting the sale of Australian canned fruits both overseas and in Australia. The rate of the charge was ten shillings per ton of fruit delivered to canneries or such lesser rate as may be prescribed from time to time. In 1959-60, collections amounted to £35,000.

3. **Business Undertakings.**—(i) *Postmaster-General's Department.* Particulars of net receipts for each of the financial years 1955-56 to 1959-60 are given in the following table:—

POSTMASTER-GENERAL'S DEPARTMENT: NET RECEIPTS.
(£'000.)

Particulars.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
Private boxes and bags	185	240	247	258	276
Commission on money orders and postal notes	935	925	932	956	1,088
Telegraphs	4,960	5,904	6,169	6,321	6,804
Telephones	44,351	51,002	55,344	59,717	71,209
Postage	26,597	29,464	31,339	33,165	39,167
Miscellaneous	2,313	2,538	2,745	3,050	3,087
Total	79,341	90,074	96,776	103,467	121,631

Further particulars of the Postmaster-General's Department's receipts to 1959-60 are given in Chapter XIV.—Transport and Communication, of this Year Book (see p. 569).

(ii) *Broadcasting and Television Services.* Following the amendment of the Australian Broadcasting Act 1942-1946 by Act No. 64 of 1948, the Australian Broadcasting Control Board was set up on 15th March, 1949. (See also Chapter XIV.—Transport and Communication; p. 578).

Details of net receipts for the years 1955-56 to 1959-60 are shown in the following table:—

BROADCASTING AND TELEVISION SERVICES; NET RECEIPTS.
(£'000.)

Particulars.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
Listeners' Licence Fees ..	3,846	4,866	5,371	5,693	5,656
Broadcasting Station Licence Fees ..	35	66	80	85	88
Television Viewers' Licence Fees ..	..	344	1,389	2,777	4,624
Television Station Licence Fees ..	..	..	7	19	38
Miscellaneous	16	25	29	44	54
Total	3,897	5,301	6,876	8,618	10,460

(iii) *Commonwealth Railways.* The Commonwealth Government is responsible for four railways—the Trans-Australian, the Central Australia, the North Australia and the Australian Capital Territory. The following table shows the amounts paid to the credit of the Consolidated Revenue Fund on account of each of these railways for the years 1955-56 to 1959-60:—

COMMONWEALTH RAILWAYS REVENUE.
(£'000.)

Railway.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
Trans-Australian	2,545	2,887	2,821	2,927	3,249
Central Australia	1,937	1,390	1,554	1,635	1,601
North Australia	86	130	182	203	272
Australian Capital Territory ..	15	21	19	46	25
Total	4,583	4,428	4,576	4,811	5,147

Further particulars to 1959-60 are given in Chapter XIV.—Transport and Communication (*see pp. 535 and 543*).

4. *Other Sources of Revenue.*—Revenue derived by the Consolidated Revenue Fund from the Territories of the Commonwealth during 1959-60 amounted to £4,198,000 (Australian Capital Territory £2,766,000; Northern Territory £1,426,000; Cocos (Keeling) Islands £6,000). Of other sources of revenue, amounting to £47,060,000, the following are noteworthy:—Interest, £12,504,000; Defence £5,832,000; Net Profit on Australian Note Issue £10,516,000; and Surplus Balances of Trust Accounts, £5,674,000.

For details of the revenue of the Territories *see* Chapter V. of this Year Book.

C. EXPENDITURE.

1. *Details of Expenditure from Consolidated Revenue.*—The following table shows details of expenditure from the Consolidated Revenue Fund during the years 1955-56 to 1959-60. In this table, particulars of interest, debt redemption, superannuation and pension charges are not shown separately, but are included with departmental, etc. expenditure. Separate figures for debt charges are shown in the table on page 820.

COMMONWEALTH CONSOLIDATED REVENUE FUND: EXPENDITURE. (£'000.)

Department, etc.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
Defence Services(a)	152,929	151,263	151,258	118,083	146,769
War (1914-18 and 1939-45) and Repatriation Services(b)	124,487	112,296	127,924	128,162	137,478
Subsidies and Bounties	17,393	15,014	15,660	17,294	17,345
Cost of Departments(c)	87,928	96,796	106,629	129,326	138,715
National Welfare Fund	214,866	223,923	247,485	278,227	299,363
Loan Consolidation and Investment Reserve Trust Account	61,613	194,793	104,378	27,947	41,382
Business Undertakings—					
Postmaster-General	85,627	91,197	96,952	100,480	111,610
Broadcasting and Television Services	5,590	6,701	7,334	8,371	9,983
Railways	3,721	4,244	4,321	4,378	4,749
Territories	14,603	16,510	19,288	20,616	23,939
Capital Works and Services—					
Defence	38,479	38,427	35,037	34,983	36,066
Repatriation	30,242	30,167	35,206	35,308	35,242
Postmaster-General	28,970	30,721	34,811	36,353	39,937
Broadcasting Services	817	2,697	1,583	1,408	3,551
Railways	2,674	3,422	2,545	1,281	1,091
Territories	8,049	8,027	11,749	14,906	16,901
Other(d)	30,865	32,488	36,868	41,785	42,732
Payments to or for States(e)	220,892	244,589	271,335	287,974	324,963
Other Expenditure	8,613	8,560	13,408	9,168	6,470
Grand Total	1,138,358	1,311,835	1,323,771	1,296,050	1,438,286
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Per Head of Population	122 4 0	137 11 8	135 16 7	130 4 6	141 8 9

(a) Excludes debt charges, audit charges, pension and superannuation payments and Defence Division of the Department of the Treasury. (b) Excludes audit charges and Government contributions under Superannuation Act.

(c) Includes audit charges relating to Defence and War and Repatriation Services; and excludes payments to the States for Cattle Tick Control, Dairy Industry Extension and Agricultural Advisory Services included under Payments to or for the States.

(d) Excludes expenditure from Capital Works votes on Grants for Railway Standardization included as payments to the States.

(e) Includes payments to States from Departmental votes. *See* footnotes (c) and (d).

Further details of the expenditure in each section are given in paragraphs 2 to 12 following.

A graphical representation of the revenue and expenditure of the Commonwealth Consolidated Revenue Fund appears on page 831. In this diagram, debt charges (interest and debt redemption, etc.) are shown as a separate item, whereas in the table above these charges are included in the section to which they relate.

Details of Commonwealth expenditure on debt charges for 1955-56 to 1959-60 are shown in the following table:—

DEBT CHARGES(a): COMMONWEALTH EXPENDITURE.
(£'000.)

Item.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
<i>War (1914-18 and 1939-45)—(b)</i>					
Interest and Exchange	43,514	42,695	39,545	36,208	33,474
Redemption	16,299	15,829	12,337	12,550	17,152
Other(c)	214	279	163	594	242
<i>Total</i>	<i>60,027</i>	<i>58,803</i>	<i>52,045</i>	<i>49,352</i>	<i>50,868</i>
<i>Business Undertakings—</i>					
<i>Postmaster-General's Department—</i>					
Interest and Exchange	885	862	833	799	766
Redemption	1,438	1,172	979	798	647
<i>Total</i>	<i>2,323</i>	<i>2,034</i>	<i>1,812</i>	<i>1,597</i>	<i>1,413</i>
<i>Railways—</i>					
Interest and Exchange	388	385	390	381	371
Redemption	172	180	189	199	208
<i>Total</i>	<i>560</i>	<i>565</i>	<i>579</i>	<i>580</i>	<i>579</i>
<i>Territories—</i>					
Interest and Exchange	233	228	227	222	220
Redemption	133	140	147	154	162
<i>Total</i>	<i>366</i>	<i>368</i>	<i>374</i>	<i>376</i>	<i>382</i>
<i>Works and other Purposes—</i>					
Interest and Exchange	8,175	9,228	10,928	10,095	11,786
Redemption	625	599	620	503	1,021
Other(c)	77	553	190	112	163
<i>Total</i>	<i>8,877</i>	<i>10,380</i>	<i>11,738</i>	<i>10,710</i>	<i>12,970</i>
<i>Total—</i>					
Interest and Exchange	53,195	53,398	51,923	47,705	46,621
Redemption	18,667	17,920	14,272	14,204	19,190
Other(c)	291	832	353	706	401
<i>Grand Total</i>	<i>72,153</i>	<i>72,150</i>	<i>66,548</i>	<i>62,615</i>	<i>66,212</i>

(a) Excludes payments to or for the States under the Financial Agreement. See pages 829-33.
(b) Includes repatriation. (c) Redemption, conversion and loan management, etc., expenses.

2. Defence Services.—Details of the expenditure on defence services, including capital works and services, but excluding debt charges, etc., by the Departments of Defence, Navy, Army, Air and Supply are shown in the following table. This table covers expenditure by the service and associated departments only, and includes the cost of maintaining forces in oversea posts.

The figures represent the combined expenditures from Consolidated Revenue and Loan Funds for the years 1955-56 to 1959-60. In previous issues of this Year Book, this table covered expenditure from Trust Funds also, but there has been no expenditure from this source on defence services in recent years.

DEFENCE SERVICES(a): COMMONWEALTH EXPENDITURE FROM REVENUE AND LOAN FUNDS.
(£'000.)

Item.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
<i>Department of Defence</i>	760	857	931	1,008	1,231
<i>Department of the Navy—</i>					
Naval Forces—Pay, maintenance, etc. . .	35,273	31,728	31,635	32,088	33,356
Naval construction and additions to the fleet . . .	4,884	3,392	5,825	5,220	5,557
Aircraft and Aircraft Engines . . .	5,438	973	2,902	1,270	756
Buildings, works, etc. . .	1,636	1,448	1,603	1,548	1,165
Advances to States under Commonwealth-State Housing Agreement . . .	..	351	290	254	274
Administrative and miscellaneous expenditure . . .	932	1,127	1,159	1,296	1,420
<i>Total</i>	48,163	39,019	43,414	41,676	42,528
<i>Department of the Army—</i>					
Military Forces—Pay, maintenance, etc. . .	41,065	41,858	38,496	41,184	44,209
Arms, armament, ammunition . . .	16,374	14,092	13,891	18,939	15,924
Buildings, works, etc. . .	3,466	2,963	3,343	3,498	3,142
Advances to States under Commonwealth-State Housing Agreement . . .	..	493	498	456	395
Administrative and miscellaneous expenditure . . .	2,119	2,280	2,443	2,645	2,676
<i>Total</i>	63,024	61,686	58,671	66,722	66,346
<i>Department of Air—</i>					
Air Force—Pay, maintenance, etc. . .	24,081	25,200	27,736	27,038	29,711
Aircraft, equipment and stores . . .	23,541	23,130	22,629	25,874	26,011
Buildings, works, etc. . .	3,013	2,662	2,869	4,147	3,650
Advances to States under Commonwealth-State Housing Agreement . . .	..	345	387	485	393
Administrative and miscellaneous expenditure . . .	1,734	1,906	2,096	2,296	2,472
<i>Total</i>	52,369	53,243	55,717	59,840	62,237
<i>Department of Supply—</i>					
Defence research and development . . .	10,689	10,362	10,509	10,242	10,158
Buildings, works, etc. . .	7,466	15,171	6,653	1,157	1,083
Administrative and miscellaneous expenditure . . .	8,161	8,651	9,377	8,595	9,542
<i>Total</i>	26,316	34,184	26,539	19,994	20,783
<i>Economic assistance to support defence programme of S.E.A.T.O. member countries</i> ..	..	26	165	298	684
<i>Administration of National Service Act</i> ..	218	206	186	159	93
<i>Civil Defence</i>	89	130	95	102	105
<i>Recruiting Campaign</i>	372	224	327	311	302
<i>Other</i>	97	115	250	262	496
<i>Total Defence Services—</i>					
Consolidated Revenue Fund	191,408	189,690	186,295	153,066	182,835
Loan Fund .. .. .	..	..	..	37,306	11,970
<i>Grand Total</i>	191,408	189,690	186,295	190,372	194,805

(a) Excludes expenditure on debt charges, audit charges, pension and superannuation payments and Defence Division of the Department of the Treasury.

3. War and Repatriation Services.—Expenditure from Consolidated Revenue and Loan Fund for War and Repatriation Services and Post-war Charges in relation to both the 1914-18 and 1939-45 Wars is shown in the following table for the years 1955-56 to 1959-60. Expenditure on the maintenance of forces in overseas posts and the cost of arms and equipment is included in Defence Services.

WAR AND REPATRIATION SERVICES AND POST-WAR CHARGES: COMMONWEALTH EXPENDITURE FROM CONSOLIDATED REVENUE AND LOAN FUNDS.

(£'000.)

Item.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
<i>Debt Charges—</i>					
Interest and Exchange	43,514	42,695	39,545	36,208	33,474
Debt Redemption	16,299	15,829	12,337	12,550	17,152
Other	214	279	163	594	242
<i>Total Debt Charges(a)</i>	60,027	58,803	52,045	49,352	50,868
War Gratuities			16	8	9
War and Service Pensions	47,307	(b) 36,763	55,982	57,107	61,470
Commonwealth Reconstruction Training Scheme	221	256	340	365	297
War Service Land Settlement	8,790	9,550	10,302	7,520	8,458
Re-establishment loans for agricultural purposes	71	83	65	63	58
<i>Repatriation Department—</i>					
Repatriation Benefits	12,278	13,069	14,182	15,988	18,118
Other benefits	473	555	730	738	788
Administration and general expenses	3,937	3,806	3,933	3,953	4,462
Expenditure recovered(c)	-1,082	-1,128	-1,022	-942	-880
<i>Total Repatriation Department</i>	15,606	16,302	17,823	19,737	22,488
War Service Homes—Salaries and general expenses	948	911	938	978	1,127
Other Departments—Miscellaneous expenditure	369	383	409	368	389
International Payments(d)	36	136	47	39	33
Other Administrations—Recoverable expenditure(e)	-1,266	-2,872	-1,340	-1,675	-782
<i>Capital Works and Services—</i>					
Repatriation Department	242	167	206	308	242
War Service Homes Act, 1918-1949	30,000	30,000	35,000	35,000	35,000
<i>Total Capital Works and Services</i>	30,242	30,167	35,206	35,308	35,242
<i>Total War and Repatriation Services and Post-war Charges—</i>					
Consolidated Revenue Fund	154,729	142,463	163,130	163,470	172,720
Loan Fund	7,622	8,019	8,703	5,700	6,937
Grand Total	162,351	150,482	171,833	169,170	179,657

(a) Excludes interest and redemption of War (1914-18) Debt due to the United Kingdom Government, payment of which was suspended in 1931. (b) In addition, £13,400,000 was spent from balance of War Pensions Trust Fund. (c) From Service Departments and Australian Soldiers' Repatriation Trust Account. (d) Excludes International Monetary Fund charges. (e) Munitions stores, etc., supplied to the Government of the United Kingdom and other administrations. Includes repayments and waiver of war-time indebtedness of other administrations.

NOTE.—Minus sign (—) indicates excess of credits or repayments over expenditure.

4. Subsidies and Bounties.—The following table shows details of Commonwealth expenditure from revenue on subsidies, bounties and assistance to primary producers for the years 1955-56 to 1959-60. Expenditure on special relief such as drought, frost, flood and bush fire, etc. is not included here (included under items in table, p. 825), nor is expenditure from the proceeds of certain taxes on primary products and profits from marketing schemes, which have been paid to trust funds for the purpose of price or other stabilization schemes or for distribution to producers (see paragraph 12, p. 836). Payments to the States for Cattle Tick Control, Dairy Industry Extension and Agricultural Advisory Services are also not included under this heading, but under the heading Payments to or for the States (see para. 11, pp. 829-36).

Further information relating to assistance to primary producers is given in Chapter XXII.—Agricultural Production. Details of price stabilization subsidies and of various forms of assistance to primary producers for earlier years may be found on pages 414 and 1014-15, respectively, of Official Year Book No. 38.

SUBSIDIES AND BOUNTIES: COMMONWEALTH EXPENDITURE.
(£'000.)

Item.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
Subsidies—					
Price Stabilization—					
Tea	1,734	..	..	..	..
Coal	27	..	..	..	..
Total	1,761	..	..	..	..
Assistance to Primary Production—					
Dairy Industry(a)	14,500	13,500	13,500	13,500	13,500
Assistance to Gold-mining Industry	401	495	660	898	838
Total Subsidies	16,662	13,995	14,160	14,398	14,338
Bounties—					
Tractor	55	158	467	415	621
Sulphuric Acid	513	421	709	1,301	1,481
Cellulose Acetate Flake .. .. .	..	179	110	110	128
Copper .. .. .	..	..	..	768	408
Other	163	261	214	302	369
Total Bounties	731	1,019	1,500	2,896	3,007
Grand Total	17,393	15,014	15,660	17,294	17,345

(a) Dairy products.

5. Total Cost of Departments.—(i) *Expenditure on Administrative Services, etc.* Expenditure under this heading covers expenditure on administrative services and other activities (i.e., what might be termed “running expenses”) by departments other than the Defence and Repatriation Departments and business undertakings. Miscellaneous expenditure and debt charges, etc., are not included in this table, but in the one following: Expenditure on defence, war and repatriation services, subsidies and bounties, social services paid from the National Welfare Fund, business undertakings, Commonwealth territories, and capital works and services is excluded.

Information on the functions of departments and the Acts administered by the Ministers of departments was published in Official Year Book No. 37, pages 76-86, and particulars of subsequent changes in departmental structure were given in later issues (see No. 43, p. 81).

COMMONWEALTH CONSOLIDATED REVENUE FUND: COST OF DEPARTMENTS—SALARIES, WAGES AND GENERAL EXPENDITURE.
(£'000.)

Department.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
Governor-General	94	103	116	116	129
Parliament—					
Cost of Parliament	1,419	1,621	1,704	1,764	2,145
Electoral Office	532	507	605	554	679
Total	1,951	2,128	2,309	2,318	2,824
Prime Minister—					
Department	270	284	316	333	386
Audit Office	609	603	622	623	708
Public Service Board	597	589	619	667	756
National Library	160	168	180	201	280
High Commissioner's Office—United Kingdom	658	725	762	832	928
Australian Universities Commission .. .. .	..	..	..	..	23
Commonwealth Grants Commission	19	18	22	20	24
Office of Education	194	186	182	177	209
Security Services	422	425	483	498	578
Total	2,929	2,998	3,186	3,351	3,892
External Affairs—					
Department	486	580	619	675	743
Overseas representation	1,444	1,484	1,569	1,655	1,983
Total	1,930	2,064	2,188	2,330	2,726
Treasury—					
Department	579	626	685	766	918
Taxation Branch and Boards of Review	7,489	7,810	8,117	8,362	9,585
Bureau of Census and Statistics	776	860	1,217	1,492	1,841
Commonwealth Superannuation Board	89	87	94	88	108
Total	8,933	9,383	10,113	10,708	12,452

COMMONWEALTH CONSOLIDATED REVENUE FUND: COST OF DEPARTMENTS—SALARIES, WAGES AND GENERAL EXPENDITURE—*continued.*

(£'000.)

Department.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
<i>Attorney-General—</i>					
Department	256	269	268	281	301
Crown Solicitor	315	326	336	343	413
High Court	109	115	111	131	148
Bankruptcy Administration	146	161	170	180	196
Court of Conciliation and Arbitration	199	211	219	245	281
Patents, Trade Marks and Designs	388	396	407	414	474
Other Branches	377	383	370	401	504
<i>Total</i>	<i>1,790</i>	<i>1,861</i>	<i>1,881</i>	<i>1,995</i>	<i>2,317</i>
<i>Interior—</i>					
Department	1,086	(a) 810	(a) 833	(a) 908	(a) 686
Meteorological Branch	601	1,012	1,081	1,362	1,644
Ionospheric Prediction Service	88	74	(b) 41	(b) 44	(b) 52
Forestry Branch	116	126	154	144	190
News and Information Bureau	271	268	277	283	322
Surveys .. .. .	..	..	..	..	97
<i>Total</i>	<i>2,162</i>	<i>2,290</i>	<i>2,386</i>	<i>2,741</i>	<i>2,991</i>
<i>Works</i>	<i>2,401</i>	<i>2,103</i>	<i>2,125</i>	<i>2,028</i>	<i>2,743</i>
<i>Civil Aviation</i>	<i>2,907</i>	<i>3,181</i>	<i>3,243</i>	<i>3,033</i>	<i>3,411</i>
<i>Customs and Excise</i>	<i>3,992</i>	<i>3,920</i>	<i>4,130</i>	<i>4,284</i>	<i>4,916</i>
<i>Health—</i>					
Department	516	556	597	624	744
Quarantine	238	261	278	284	309
Health Services	608	639	659	706	915
<i>Total</i>	<i>1,362</i>	<i>1,456</i>	<i>1,534</i>	<i>1,614</i>	<i>1,968</i>
<i>Trade—</i>					
Department	425	918	1,028	1,136	1,222
Tariff Board	68	73	89	134	165
Commercial Intelligence Services Abroad	453	512	562	619	695
<i>Total</i>	<i>946</i>	<i>1,503</i>	<i>1,679</i>	<i>1,889</i>	<i>2,082</i>
<i>Primary Industry—</i>					
Department	268	343	380	390	439
Inspection of goods for export	1,007	996	1,043	1,144	1,320
Division of Agricultural Economics	168	127	142	133	157
<i>Total</i>	<i>1,443</i>	<i>1,466</i>	<i>1,565</i>	<i>1,667</i>	<i>1,916</i>
<i>Social Services—Department</i>	<i>2,632</i>	<i>2,767</i>	<i>3,085</i>	<i>3,215</i>	<i>3,723</i>
<i>Shipping and Transport—</i>					
Department	160	158	169	165	185
Marine Branch	898	953	979	989	1,059
Ship Construction	16	16	16	16	16
<i>Total</i>	<i>1,074</i>	<i>1,127</i>	<i>1,164</i>	<i>1,170</i>	<i>1,260</i>
<i>Territories—Department</i>	<i>184</i>	<i>214</i>	<i>264</i>	<i>271</i>	<i>341</i>
<i>Immigration—Department</i>	<i>1,727</i>	<i>1,795</i>	<i>1,879</i>	<i>1,956</i>	<i>2,131</i>
<i>Labour and National Service—Department</i>	<i>1,991</i>	<i>2,014</i>	<i>2,076</i>	<i>2,141</i>	<i>2,445</i>
<i>National Development—</i>					
Department	335	215	227	232	275
Bureau of Mineral Resources	522	586	785	782	1,026
Division of National Mapping	(c)	230	307	312	415
<i>Total</i>	<i>857</i>	<i>1,031</i>	<i>1,319</i>	<i>1,326</i>	<i>1,716</i>
<i>Commonwealth Scientific and Industrial Research Organization—Department</i>	<i>4,716</i>	<i>4,959</i>	<i>5,427</i>	<i>6,086</i>	<i>7,070</i>
<i>Atomic Energy Commission</i>	<i>640</i>	<i>699</i>	<i>1,331</i>	<i>1,525</i>	<i>2,233</i>
<i>Total All Departments</i>	<i>46,661</i>	<i>49,062</i>	<i>53,000</i>	<i>55,764</i>	<i>65,286</i>

(a) Excludes Division of National Mapping now included under Department of National Development.
 (b) Excludes Observatory now transferred to Australian National University. (c) Included with Interior Department.

(ii) *Miscellaneous Expenditure.* The following table gives details of miscellaneous expenditure included in the total cost of departments. It covers such items as interest and debt redemption in respect of departments (including defence departments), which are included under expenditure by the Department of the Treasury, repairs and maintenance of buildings, and special expenditure for which the Commonwealth is committed, such as contributions to international organizations, payment of Commonwealth scholarships, etc. The costs of social services, which are paid from the National Welfare Fund, are not included in this table (see pp. 826-7 for this information).

**COMMONWEALTH CONSOLIDATED REVENUE FUND: COST OF
DEPARTMENTS—MISCELLANEOUS EXPENDITURE.(a)**

(£'000.)

Department.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
<i>Governor-General</i>	29	47	42	31	34
<i>Parliament—</i>					
Cost of elections	301	19	7	357	23
Other	36	52	64	146	91
<i>Total</i>	337	71	71	503	114
<i>Prime Minister—</i>					
Commonwealth Scholarship Scheme and financial assistance to University students	1,111	1,190	1,311	1,655	2,167
Australian National University	877	965	1,196	1,404	1,684
Bush fire and flood relief, etc. ..	394	555	254	96	163
Other	894	992	486	588	803
<i>Total</i>	3,276	3,702	3,247	3,743	4,817
<i>External Affairs—</i>					
United Nations and Allied Organizations	659	769	828	927	993
Advance to United Nations—Cost of clearance Suez Canal .. .. .	..	449	..	..	..
Australian National Antarctic Research Expeditions	269	342	389	527	738
International development and relief ..	5,285	5,668	5,666	4,097	5,222
Contributions to other international agencies, etc.	139	177	210	279	260
<i>Total</i>	6,352	7,405	7,093	5,830	7,213
<i>Treasury—</i>					
Interest (including exchange)	8,174	9,228	10,928	10,095	11,790
Debt Redemption(b)	625	599	620	503	1,021
Other(c)	2,896	5,529	6,661	23,894	18,950
<i>Total</i>	11,695	15,356	18,209	34,492	31,761
<i>Attorney-General</i>	75	87	99	100	118
<i>Interior—</i>					
Other departments in Canberra—Transport services, fuel, light and power; overseas publicity, etc.	412	478	517	406	454
Other	434	549	614	695	714
<i>Total</i>	846	1,027	1,131	1,101	1,168
<i>Works</i>	129	146	171	216	227
<i>Civil Aviation—</i>					
Maintenance and development of civil aviation	4,617	5,048	5,661	7,566	8,094
Meteorological maintenance services and other	407	629	620	707	850
<i>Total</i>	5,024	5,677	6,281	8,273	8,944
<i>Customs and Excise—</i>					
Refunds of Diesel Fuel Taxation ..	..	90	1,314	989	278
Other	102	90	117	143	292
<i>Total</i>	102	90	1,431	1,132	570
<i>Health—</i>					
Miscellaneous expenditure on health ..	509	563	618	669	711
Other	109	98	141	106	122
<i>Total</i>	618	661	759	775	833
<i>Trade—</i>					
Export Payments Insurance Corporation	..	465	35	500	..
Other	199	412	504	638	715
<i>Total</i>	199	877	539	1,138	715

For footnotes see next page.

COMMONWEALTH CONSOLIDATED REVENUE FUND: COST OF DEPARTMENTS—MISCELLANEOUS EXPENDITURE(a)—continued.

(£'000.)

Department.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
Primary Industry—					
Wool Use Promotion and Research ..	426	489	885	926	1,028
Fisheries development ..	125	270	215	114	9
Australian Wool Testing Authority—					
Advance ..	..	..	8	26	6
Other ..	121	182	205	296	361
Total ..	672	941	1,313	1,362	1,404
Social Services—					
Compassionate allowances, assistance					
Homes for Aged, etc. ..	535	884	971	1,909	2,017
Other ..	61	55	62	86	71
Total ..	596	939	1,033	1,995	2,088
Shipping and Transport—					
Shipping subsidies, etc. ..	607	357	328	302	149
Merchant Ship Construction—Subsidy ..	(d)	1,433	1,858	1,800	1,842
Railway fare and freight concessions ..	593	2	2	3	3
Oversea Coal—Loss on Emergency Transport	828	..	..	..	..
Overseas Telecommunications Commission					
—coastal radio service ..	..	183	180	235	307
Other ..	44	59	64	68	550
Total ..	2,072	2,034	2,432	2,408	2,851
Territories ..	1	1	2	3	2
Immigration—					
Assisted migration ..	6,270	5,724	6,835	7,188	7,567
Other migration activities ..	2,035	1,936	1,870	1,862	1,811
Other ..	315	300	250	219	233
Total ..	8,620	7,960	8,955	9,269	9,611
Labour and National Service ..	109	114	129	141	136
National Development—					
Joint Coal Board ..	246	386	195	170	176
Other ..	140	58	327	679	438
Total ..	386	444	522	849	614
Commonwealth Scientific and Industrial Research Organization—					
Miscellaneous grants to scientific bodies	100	109	124	137	145
Other ..	29	46	46	64	64
Total ..	129	155	170	201	209
Total, All Departments ..	41,267	47,734	53,629	73,562	73,429

(a) Includes rent, repairs and maintenance. Pension and superannuation contributions and interest and debt redemption in respect of the various departments are included under the Department of the Treasury. Payments to States from Departmental Miscellaneous Expenditure—Cattle Tick Control, Dairy Industry Extension Grant and Agricultural Advisory Services—are excluded. (b) Unallocated debt charges, in respect of all departments, including defence departments. (c) Includes pensions and superannuation contributions in respect of all departments, including defence departments. (d) Provided under Capital Works and Services votes.

6. **National Welfare Fund.**—The National Welfare Fund was established for the purpose of providing a fund for the payment of Commonwealth social services benefits. During the year 1949-50, an amount equivalent to the total collections of pay-roll tax and social services contribution was paid to the fund from Consolidated Revenue. During 1950-51, the social services contribution was amalgamated with the normal income tax, and it became necessary to base the contributions on another formula. For the year 1950-51, the amount paid to the fund was the total of collections of pay-roll tax and social services contribution plus £30,000,000. In 1951-52, the amount paid to the fund was the amount paid in 1950-51 increased in the same proportion as collections of pay-roll tax increased over the collections of pay-roll tax in 1950-51. By an amendment to the National Welfare Fund Act 1943-1950, the amount to be paid to the fund in 1952-53 and subsequent years was changed to the amount of moneys paid out of the fund. In addition to these payments from Consolidated Revenue, the fund received a small amount of interest from investments.

In the following table, details are given of the income and expenditure of the National Welfare Fund and the balance in the fund at the end of each year for the years 1955-56 to 1959-60. For a detailed account of the establishment of the National Welfare Fund, the services provided and the numbers and amounts of benefits paid, see Chapter XVIII.—Welfare Services.

NATIONAL WELFARE FUND: RECEIPTS, EXPENDITURE AND BALANCES.

(£'000.)

Year.	Income.			Expendi- ture.	Balance in Fund at end of Year.
	Contribution from Consolidated Revenue.	Interest on Invest- ments.	Total.		
1955-56	214,866	2,086	216,952	214,866	193,124
1956-57	223,923	1,938	225,861	223,923	195,062
1957-58	247,485	1,958	249,443	247,485	197,020
1958-59	278,227	1,977	280,204	278,227	198,997
1959-60	299,363	2,002	301,365	299,363	200,999

7. *Loan Consolidation and Investment Reserve Trust Account.*—The Loan Consolidation and Investment Reserve Act 1955 established the Loan Consolidation and Investment Reserve Trust Account for the purpose of repurchase or redemption of securities representing portion of the public debt of the Commonwealth.

In 1955-56, the Account was credited with a transfer from the Debt Redemption Reserve Trust Account of £126,422,000. Payments from the Consolidated Revenue Fund were made as follows:—1955-56, £61,613,000; 1956-57, £194,793,000; 1957-58, £104,378,000; 1958-59, £27,947,000; and 1959-60, £41,382,000. Expenditure from the Trust Account on repurchase of securities was £28,701,000 in 1955-56; £43,443,000 in 1956-57; £132,767,000 in 1957-58; £100,046,000 in 1958-59; and £79,885,000 in 1959-60. The major portion of the balance of the Trust Account at 30th June, 1960, was invested in Commonwealth securities in special loans to finance Commonwealth and State works programmes.

8. *Business Undertakings.*—(i) *Postmaster-General's Department.* Details of the expenditure of this Department for the years 1955-56 to 1959-60 are given in the following table:—

POSTMASTER-GENERAL'S DEPARTMENT: EXPENDITURE.

(£'000.)

Item.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
Salaries, stores and materials, mail, engineer- ing services, etc.	80,644	86,301	91,777	95,305	106,404
Superannuation, Pensions, etc.	1,606	1,745	2,024	2,203	2,420
Rents, repairs, etc.	1,054	1,117	1,339	1,375	1,374
Interest and Exchange	883	862	833	799	765
Debt Redemptions	1,438	1,172	979	798	647
<i>Total Working, etc., Expenses</i>	<i>85,627</i>	<i>91,197</i>	<i>96,952</i>	<i>100,480</i>	<i>111,610</i>
Capital Works and Services	28,970	30,721	34,811	36,353	39,937
Grand Total	114,597	121,918	131,763	136,833	151,547

Further details of the Postmaster-General's Department expenditure for 1959-60 appear in Chapter XIV.—Transport and Communication, of this Year Book (*see* p. 570).

(ii) *Broadcasting and Television Services.* Details of expenditure for the years 1955-56 to 1959-60 are shown in the following table. Further details of broadcasting and television services appear in Chapter XIV.—Transport and Communication of this Year Book (*see* p. 578).

**COMMONWEALTH BROADCASTING AND TELEVISION SERVICES;
EXPENDITURE.**

(£'000.)

Item.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
Australian Broadcasting Control Board ..	106	153	153	192	258
Australian Broadcasting Commission— Salaries, general and programme expenses	3,250	4,633	5,100	5,936	7,238
Technical and other Services—Postmaster- General—Sound Broadcasting ..	2,210	1,844	1,995	2,060	2,181
Television .. .. .	..	53	58	159	275
Repairs, maintenance, etc.	24	18	28	24	31
<i>Total Working, etc., expenses</i> ..	<i>5,590</i>	<i>6,701</i>	<i>7,334</i>	<i>8,371</i>	<i>9,983</i>
Capital Works and Services	817	2,697	1,583	1,408	3,551
Grand Total	6,407	9,398	8,917	9,779	13,534

(iii) *Railways.* The expenditure on railways for the years 1955-56 to 1959-60 is shown below.

COMMONWEALTH RAILWAYS : EXPENDITURE.

(£'000.)

Item.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
Working expenses—					
Trans-Australian ..	1,705	2,057	2,277	2,301	2,610
North Australia ..	183	239	221	169	202
Central Australia ..	1,152	1,238	1,090	1,168	1,185
Aust. Capital Territory ..	45	50	50	50	52
Interest and Exchange ..	388	385	390	381	371
Debt Redemption	172	180	189	199	209
Superannuation	59	59	68	74	82
Miscellaneous	17	36	36	36	38
<i>Total Working, etc., ex- penses</i>	<i>3,721</i>	<i>4,244</i>	<i>4,321</i>	<i>4,378</i>	<i>4,749</i>
Capital Works and Services ..	2,674	3,422	2,545	1,281	1,091
Grand Total	6,395	7,666	6,866	5,659	5,840

Additional details of the financial operations of the Commonwealth Railways to 1959-60 are given in Chapter XIV.—Transport and Communication (*see* pp. 537-9).

9. *Territories.*—The following table shows the expenditure on account of Commonwealth Territories for the years 1955-56 to 1959-60. The Australian Capital Territory is administered by the Department of the Interior, and the Department of Territories controls the Northern Territory and the external territories. The expenditure has been grouped in one table for convenience. Information in greater detail will be found in Chapter V.—The Territories of Australia, of this Year Book.

COMMONWEALTH TERRITORIES : EXPENDITURE.
(£'000.)

Territory.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
<i>Administration and Maintenance of Services—</i>					
Aust. Capital Territory(a) ..	2,663	3,062	3,359	3,971	4,593
Northern Territory(a) ..	3,275	3,810	4,487	4,959	6,326
Papua ..	8,623	9,581	11,383	11,619	12,958
New Guinea ..					
Norfolk Island ..					
Cocos (Keeling) Islands ..	12	20	26	36	30
<i>Total</i> ..	14,603	16,510	19,288	20,616	23,939
<i>Capital Works and Services—</i>					
Aust. Capital Territory(a) ..	5,181	4,957	8,394	11,098	12,433
Northern Territory(a) ..	2,861	2,798	3,300	3,678	3,874
Papua and New Guinea ..	5	215	8	87	591
Cocos (Keeling) Islands ..	2	57	47	43	3
<i>Total</i> ..	8,049	8,027	11,749	14,906	16,901

(a) Excludes Railways, see para 8 (iii) page 828.

10. Capital Works and Services.—In the following table, details are given of Commonwealth expenditure on capital works and services during each of the years 1955-56 to 1959-60. The table covers all expenditure on capital works and services made from the Consolidated Revenue Fund and the Loan Fund. In previous issues of this Year Book, this table covered expenditure from Trust Funds also, but there has been no expenditure on capital works and services from this source in recent years.

COMMONWEALTH EXPENDITURE ON CAPITAL WORKS AND SERVICES FROM
REVENUE AND LOAN FUNDS.
(£'000.)

Particulars.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
<i>Defence and War—</i>					
Navy ..	11,288	5,602	9,814	7,504	6,996
Army ..	12,467	10,138	10,732	15,831	13,163
Air Force ..	3,013	3,007	3,256	4,632	4,043
Munitions and other ..	11,711	19,669	10,958	7,014	11,847
<i>Repatriation Services—</i>					
War Service Homes ..	30,000	30,000	35,000	35,000	35,000
Other ..	242	167	206	308	242
Postmaster-General's Department ..	28,969	30,715	34,807	36,354	39,936
Broadcasting and Television Services ..	817	2,697	1,583	1,407	3,551
<i>Railways—</i>					
Commonwealth ..	2,669	3,422	2,542	1,239	1,071
<i>Territories—</i>					
Australian Capital Territory ..	5,177	4,954	8,390	11,095	12,433
Northern Territory ..	2,861	2,798	3,300	3,678	3,874
Papua-New Guinea ..	5	215	8	87	591
Cocos (Keeling) Islands ..	2	57	47	43	3
<i>Other—</i>					
Ships, yards and docks ..	3,589	1,343			
Civil Aviation ..	3,881	3,657	4,098	5,688	4,801
Snowy Mountains Scheme ..	15,146	18,000	18,350	24,000	28,250
Immigration ..	319	253	297	270	350
Health ..	639	384	549	678	811
Subscriptions to Capital ..	1,200	1,500	1,750	4,750	1,300
Advances ..	205	432	1,297	230	166
All other works, buildings, etc. ..	5,887	6,919	10,528	6,149	7,049
<i>Total</i> ..	140,087	145,929	157,512	165,957	175,477
<i>Source of Funds—</i>					
Consolidated Revenue Fund ..	140,096	145,938	157,522	166,024	175,520
Loan Fund ..	—9	—9	—10	—67	—43
<i>Total</i> ..	140,087	145,929	157,512	165,957	175,477

NOTE.—Minus sign (—) indicates excess of credits or repayments over expenditure.

11. Payments to or for the States.—(i) *General.* An outline of the provisions of the Constitution requiring the Commonwealth to make payments to the States, and of the

systems which followed, is given in earlier issues of the Official Year Book (see No. 37, pp. 633 to 638). In the following paragraphs, reference is made to the arrangements at present in operation.

(ii) *Amounts Paid.* (a) Year 1959–60. The table below shows particulars of the amounts paid to each of the States as grants for the several purposes referred to in subsequent paragraphs:—

COMMONWEALTH PAYMENTS TO OR FOR THE STATES, 1959–60.(a)
(£'000.)

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
Financial Agreement—							
Interest on States' Debts ..	2,918	2,127	1,096	704	473	267	7,585
Sinking Fund on States' Debts(b) ..	2,074	1,367	744	791	578	388	5,942
Special Grants ..				1,426	3,500	3,400	8,326
Financial Assistance Grants ..	83,450	60,625	36,375	27,675	25,462	10,913	244,500
Commonwealth Aid Roads(c) ..	12,172	8,660	8,021	4,922	7,964	2,184	43,923
Tuberculosis Act 1948—Reimbursement of Capital Expenditure ..	216	26	372	107	39	21	781
Mental Institutions—Contribution to Capital Expenditure ..	359	518	74	92	37	67	1,147
Western Australia Waterworks Grant ..					609		609
Coal Mining Industry—Long Service Leave(c) ..	385		66		24	9	484
Encouragement of Meat Production Grants to Universities ..	3,233	1,422	866	893	631	583	7,628
Cattle Tick Control ..	477						477
Dairy Industry Extension Grant ..	74	60	65	26	10	12	247
Expansion of Agricultural Advisory Services ..	62	50	48	25	22	11	218
Development of North Western Australia ..					484		484
Grants for Railway Standardization(d) ..		2,570		36			2,606
Total ..	105,420	77,425	47,733	36,697	39,833	17,855	324,963

(a) Excludes relief to primary producers, subsidies and bounties, and other payments for medical research, etc. (b) Paid to National Debt Sinking Fund. (c) Paid to Trust Fund. (d) Grants only—excludes repayable advances.

(b) 1955–56 to 1959–60. The following table shows particulars of payments by the Commonwealth to or on behalf of the States during each of these years:—

COMMONWEALTH PAYMENTS TO OR FOR THE STATES.(a)
(£'000.)

Particulars.	1955–56.	1956–57.	1957–58.	1958–59.	1959–60.
Financial Agreement—					
Interest on States' Debts ..	7,585	7,585	7,585	7,585	7,585
Sinking Fund on States' Debts(b) ..	4,310	4,640	5,065	5,386	5,942
Special Grants ..	18,500	18,500	19,500	20,750	8,326
Financial Assistance Grants ..	141,578	154,622	165,820	174,547	244,500
Special Financial Assistance ..	15,348	19,405	24,145	30,437	
Additional Financial Assistance ..			5,000		
Grants for Road Construction, etc.(c) ..	26,519	31,269	31,664	33,249	43,923
Commonwealth Aid Roads—Special Assistance ..			2,950	2,950	
Tuberculosis Act 1948—Reimbursement of Capital Expenditure ..	1,758	2,381	2,142	1,412	781
Mental Institutions—Contribution to Capital Expenditure ..	773	1,248	1,256	1,120	1,147
Western Australian Waterworks Grants ..	682	462	677	524	609
Coal Mining Industry—Long Service Leave(c) ..	565	597	590	525	484
Imported Houses—Grants ..		2			
Contribution to South Australia—Port Augusta to Port Pirie Railway ..	20	20			
Encouragement of Meat Production Grants to Universities ..	303	134	98	16	6
Cattle Tick Control ..	1,651	2,262	3,074	6,919	7,628
Dairy Industry Extension Grant ..	552	675	536	578	477
Expansion of Agricultural Advisory Services ..	228	237	219	261	247
Development of North Western Australia ..	237	270	265	236	218
Grants for Railway Standardization(d) ..				171	484
Total ..	283	280	749	1,308	2,606
Total ..	220,892	244,589	271,335	287,974	324,963

(a) Excludes relief to primary producers, subsidies and bounties, and other payments for medical research, etc. (b) Paid to National Debt Sinking Fund. (c) Paid to Trust Fund. (d) Grants only—excludes repayable advances.

COMMONWEALTH CONSOLIDATED REVENUE FUND, YEAR ENDED 30TH JUNE, 1960

REVENUE

CUSTOMS DUTIES
£84,400,000

EXCISE DUTIES
£252,100,000

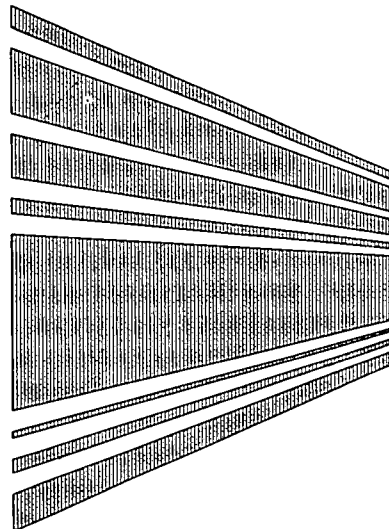
SALES TAX
£184,200,000

PAY - ROLL TAX
£55,200,000

INCOME TAXES
£671,300,000

OTHER TAXES
£22,800,000
MISCELLANEOUS
£51,300,000

BUSINESS UNDERTAKINGS
£137,200,000



CONSOLIDATED
REVENUE
FUND
£1,438,300,000

EXPENDITURE

CAPITAL WORKS
AND SERVICES
£175,500,000

DEBT CHARGES
£68,200,000

DEFENCE SERVICES
£148,800,000

WAR AND REPATRIATION
SERVICES
£88,600,000

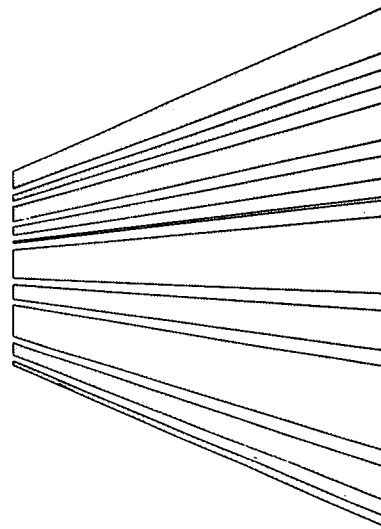
SUBSIDIES AND BOUNTIES
£17,300,000

SOCIAL SERVICES
£299,400,000

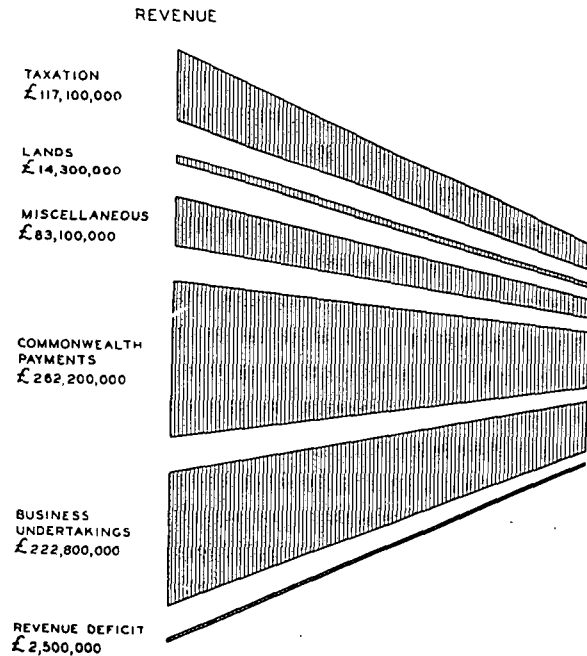
MISCELLANEOUS
£153,800,000

PAYMENTS TO STATES
£325,000,000

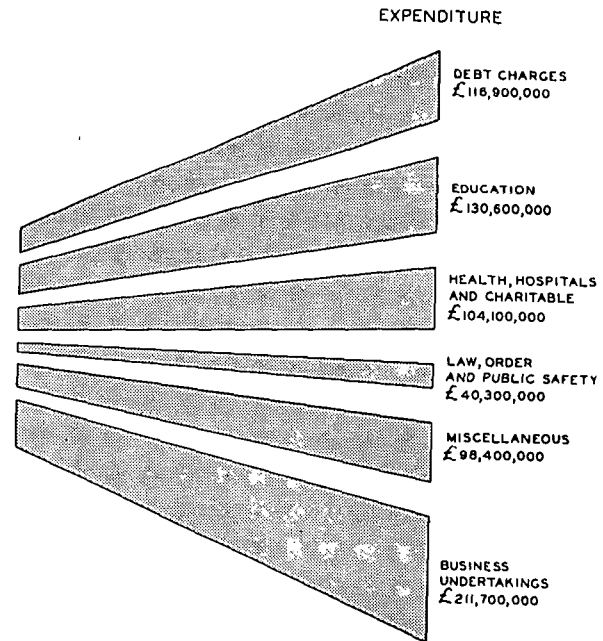
BUSINESS UNDERTAKINGS
£128,300,000
LOAN CONSOLIDATION AND
INVESTMENT RESERVE TRUST
ACCOUNT
£41,400,000



STATE CONSOLIDATED REVENUE FUNDS, YEAR ENDED 30TH JUNE, 1960



CONSOLIDATED
REVENUE
FUNDS
£702,000,000



Particulars of special Commonwealth grants for the relief of primary producers are not included in the foregoing tables. See para. 4, Subsidies and Bounties, page 822 and para. 12, Other Expenditure, page 836.

(iii) *Financial Agreement.* Details of the Financial Agreement between the Commonwealth and the States are given in Official Year Book No. 37, pages 685 to 690. Under this Agreement, the Commonwealth undertook to contribute £7,584,912 per annum towards interest payable on the State Loan Securities for a period of 58 years from 1st July, 1927. This amount is to be distributed among the States as follows:—New South Wales, £2,917,411; Victoria, £2,127,159; Queensland, £1,096,235; South Australia, £703,816; Western Australia, £473,432; Tasmania, £266,859.

These amounts are equal to the sums paid by the Commonwealth to each State in the year 1926–27 at the rate of 25s. per head of population, the rate at which the Commonwealth had contributed annually to the States since 1st July, 1910, as compensation for the States relinquishing, after Federation, the right to levy Customs and Excise Duties.

In addition, under the Financial Agreement, the Commonwealth agreed to make certain contributions to the National Debt Sinking Fund for redemption of State Loan Securities. Details of these are given in Division D of this Chapter, § 2, page 853.

(iv) *Special Grants.* The Constitution provides in Section 96 for the granting of special financial assistance to the States. Prior to 1933, financial assistance of varying amounts was granted by the Commonwealth to South Australia, Western Australia and Tasmania. Details of this may be found in earlier issues of the Official Year Book (see No. 40, p. 695).

In 1933, the Commonwealth Government appointed the Commonwealth Grants Commission of three members to inquire into and report upon claims made by any State for a grant of financial assistance and any matters relevant thereto.

Applications have been received from South Australia, Western Australia and Tasmania each year from 1933 onwards and the recommendations of the Commission in respect of the years 1956–57 to 1960–61 are shown in the following table. Commencing with 1949–50, the Commission has divided the grants recommended into two parts. One part is the Commission's estimate of the indispensable need of the claimant State for the year in which the payment is to be made after allowing a sufficient margin for safety. The other part is an adjustment of this estimate for an earlier year after an examination of the audited accounts for that year. Thus the grants for 1960–61 include an estimate of the indispensable need of the claimant State for 1960–61 and an adjustment to the estimated grant for 1958–59. South Australia agreed with the Commonwealth not to apply for special grants in other than exceptional circumstances after 1st July, 1959, when the new financial arrangements under the State Grants Act 1959 came into operation (see sub-para. (v) below).

COMMONWEALTH GRANTS COMMISSION: GRANTS RECOMMENDED.
(£1,000.)

Particulars.	1956–57.	1957–58.	1958–59.	1959–60.	1960–61.
<i>South Australia—</i>					
Estimated grant	5,760	4,858	5,201	..	..
Adjustment(a)	40	842	49	(b) 1,426	..
<i>Net grant recommended</i> ..	<i>5,800</i>	<i>5,700</i>	<i>5,250</i>	<i>1,426</i>	<i>..</i>
<i>Western Australia—</i>					
Estimated grant	9,102	9,828	9,758	3,149	3,700
Adjustment(a)	98	322	1,342	351	609
<i>Net grant recommended</i> ..	<i>9,200</i>	<i>10,150</i>	<i>11,100</i>	<i>3,500</i>	<i>4,309</i>
<i>Tasmania—</i>					
Estimated grant	3,657	4,466	4,414	2,597	3,400
Adjustment(a)	—157	—816	—14	803	909
<i>Net grant recommended</i> ..	<i>3,500</i>	<i>3,650</i>	<i>4,400</i>	<i>3,400</i>	<i>4,309</i>
Grand Total	18,500	19,500	20,750	8,326	8,618

(a) Adjustment to estimated grant paid two years previously.
payment of £1,027,000 in 1959–60.

(b) Includes the final adjusting

(v) *Financial Assistance Grants.* The States Grants Act 1959 repealed the States Grants (Tax Reimbursement) Acts of 1946, 1947 and 1948 and provided for payment to the States of financial assistance in 1959–60 amounting to £244,500,000 to be distributed amongst the States as follows:—New South Wales, £83,450,000; Victoria, £60,625,000;

Queensland, £36,375,000; South Australia, £27,675,000; Western Australia, £25,462,000; Tasmania, £10,913,000. In subsequent years, the financial assistance grant payable to each State is to be determined by increasing its grant for 1959–60 in accordance with a formula which will take into account movements in population in each State and the increases (if any) in the level of average wages per person employed as shown in returns submitted under the Pay-roll Tax Assessment Act 1941–1957.

Details of the States Grants (Income Tax Reimbursement) Act 1942 and the States Grants (Entertainments Tax Reimbursement) Act 1942 are given in earlier issues of the Official Year Book (*see* No. 37, pp. 635 to 637). These Acts provided for grants to the States as compensation for vacating the fields of Income Tax and Entertainments Tax. Grants under these Acts ceased after 1945–46 and were replaced by grants under the States Grants (Tax Reimbursement) Act 1946–1948 which expired after 1958–59. *See* Official Year Book No. 46, pages 837–8.

(vi) *Special Financial Assistance Grants.* During the years 1954–55 to 1958–59, there were heavy additions to the financial needs of the States and special assistance grants amounting to £19,902,000, £15,348,000, £19,405,000, £24,145,000 and £30,437,000 respectively were made. For details of amounts paid to each State *see* earlier issues of the Official Year Book or the annual bulletin *Finance, Part I.—Public and Private Finance.*

(vii) *Additional Financial Assistance.* The States Grants (Additional Assistance) Act 1958 provided for the payment of £5,000,000 from the Consolidated Revenue Fund for financial assistance to the States.

(viii) *Grants for Road Construction.* (a) *Main Roads Development Act 1923–25, Federal Aid Roads Acts 1926, 1931 and 1936, Federal Aid Roads and Works Act 1937, Commonwealth Aid Roads and Works Act 1947–1949, Commonwealth Aid Roads Act 1950, Commonwealth Aid Roads Act 1954, and Commonwealth Aid Roads (Special Assistance) Act 1957.* Details of these Acts are given in earlier issues of the Official Year Book (*see* No. 38, pp. 787–8, No. 41, p. 62 and No. 46, p. 838) and in the annual bulletin *Finance, Part I.—Public and Private Finance.*

(b) *Commonwealth Aid Roads Act 1959.* A new scheme of Commonwealth assistance to the States for roads was established by the Commonwealth Aid Roads Act 1959. Under this Act, which is to operate for a period of five years from 1st July, 1959, the Commonwealth has undertaken to make available up to £250,000,000 to the States for the construction, reconstruction, maintenance and repair of roads.

Of this amount, a total of £220,000,000 will be paid to the States as basic grants for roads over five years. The basic grants are fixed annual amounts which rise progressively by £2,000,000 a year from £40,000,000 in 1959–60 to £48,000,000 in 1963–64. In each year, the grants will be distributed between the States on the basis of 5 per cent. of the total to Tasmania and the balance shared between the other five States, one-third in proportion to their respective populations at the date of the last preceding Census, one-third in proportion to their respective areas and one-third in proportion to the respective number of motor vehicles registered in these States at 31st December preceding the year of payment.

The balance of up to £30,000,000 over the five years will be made available to the States as matching assistance for roads. The total amounts of matching assistance will increase by £2,000,000 a year from £2,000,000 in 1959–60 to £10,000,000 in 1963–64. Up to the limit of its share of the total matching assistance available in any year, each State qualifies for £1 of matching assistance from the Commonwealth for each £1 by which the amount it allocates in that year from its own resources for expenditure on roads exceeds the amount so allocated in 1958–59. The share of each State in the total matching assistance available in any year is determined by the same formula as is used to determine its share of the basic grant in that year.

The full amount of the matching assistance available to each State in any year is being paid during that year on the understanding that the road grants to the State in the following year will be adjusted if it is subsequently found that the State did not qualify in full for the matching assistance paid to it in that year.

The legislation relating to the years 1947–48 to 1958–59 provided for annual allocations to the Commonwealth for expenditure on strategic roads and the promotion of road safety practices. No such provisions are contained in the present legislation, the Commonwealth making separate provision for these purposes.

(ix) *Tuberculosis Act 1948.* The Tuberculosis Act 1948 provided for the reimbursement by the Commonwealth of capital expenditure incurred by the States in the provision of facilities for the diagnosis, treatment and control of tuberculosis, as from 1st July, 1948.

(x) *States Grants (Mental Institutions) Act 1955.* This Act provides for financial assistance to the States for capital expenditure on mental institutions to a maximum amount of £10,000,000. Each State is entitled to one-third of expenditure on buildings or equipment of a mental institution made on or after 1st July, 1955.

(xi) *Other Payments. (a) Western Australian Waterworks.* The Western Australia Grant (Water Supply) Act 1948–57 provides for grants to Western Australia not exceeding an aggregate of £5,000,000 for the development of the Agricultural Areas, Great Southern Towns and Goldfields Water Supply schemes. The amount provided by the Commonwealth is not to exceed half the total expenditure on the scheme.

(b) *Coal Mining Industry—Long Service Leave.* To provide funds for the payment for long service leave in the coal mining industry, the Commonwealth imposed an excise duty of 6d. a ton on coal produced from 1st November, 1949. The rate of duty was raised to 7½d. a ton from 26th August, 1951, and to 8d. a ton from 30th May, 1952. The proceeds of this excise duty are paid to a trust fund out of which the States are reimbursed for expenditure incurred in granting long service leave to employees in the coal mining industry.

(c) *Imported Houses.* Under the States Grants (Imported Houses) Act 1950 the Commonwealth Government undertook to pay to the States a subsidy not exceeding £300 per house for houses imported by a State or a housing authority of a State after 12th October, 1949. Imports of houses under this scheme have now ceased.

(d) *Contribution to South Australia—Port Augusta to Port Pirie Railway.* The Port Augusta to Port Pirie Railway Act 1935–1950 approved an agreement between the Commonwealth and South Australia to provide for the extension of the Trans-Australian Railway by the construction of a railway in South Australia from Port Augusta to Port Pirie. As a contribution towards reimbursing South Australia for the cost of the section to be constructed by the State, and for any additional expense incurred by the State in carrying out the Agreement, the Act provided for a payment by the Commonwealth to the State of South Australia of £20,000 per annum for twenty years, the first payment being made in 1937–38 after the opening of the railway and the final payment in 1956–57.

(e) *Encouragement of Meat Production.* To develop meat production in Queensland and Western Australia, grants are made to these States for the provision and improvement of roads and other facilities for the movement of live-stock. Provision is made for the Commonwealth to meet the cost of the construction and improvement of certain specified roads in both States and the construction of eight cattle loading and unloading points in Queensland. Provision is also made for the Commonwealth to meet half the cost of improving watering facilities on specified stock routes in both States. The amount of the grants for improving watering facilities on stock routes is limited to £75,000 in Queensland and £31,500 in Western Australia. These limits were extended as from 20th April, 1954, to £150,000 in Queensland and £50,000 in Western Australia.

(f) *Grants to Universities.* Payments to the States for universities were first introduced in 1951–52 under the States Grants (Universities) Act 1951, and were continued under similar legislation passed in 1953, 1955, 1956 and 1957. Following on the Government's acceptance of the main recommendations of the Committee on Australian Universities, the provisions of the 1957 Act relating to financial assistance for 1958 were superseded by the States Grants (Universities) Act 1958, which operated from 1st January, 1958.

This new legislation authorized the Commonwealth to make payments to the States for universities of up to £21,400,000 over the three calendar years 1958 to 1960, inclusive, where certain conditions have been satisfied. These payments include increased contributions towards the running expenses of universities, new grants for capital works and equipment and new emergency grants.

(g) *Cattle Tick Control.* Since 1926–27, the Commonwealth has subsidized the cost of eradication and control of cattle tick in New South Wales. From 1950–51, the subsidy was increased on a £1 for £1 basis up to an agreed maximum. The payments are charged to the departmental expenditure of the Department of Health.

(h) *Western Australia Northern Development.* The Commonwealth provides financial assistance of up to £5,000,000 to the State of Western Australia under the Western Australia Grant (Northern Development) Act 1958–59 in respect of developmental expenditure by the State in the area of Western Australia north of the twentieth parallel of latitude during the period of five years commencing on 1st July, 1958. Under the scheme, Commonwealth

assistance is provided in respect of projects, nominated by the State, which the Commonwealth is satisfied will contribute to the development of the area and which could not reasonably be expected to be carried out during the period of five years without the grant of Commonwealth assistance.

Payments to the State during 1959–60 amounted to £484,000, bringing total payments by the Commonwealth in respect of the scheme to £655,000.

(i) *Dairy Industry Extension Grant.* The Commonwealth provides financial assistance with a maximum annual limit of £250,000, to promote improved farm practices in the dairy industry. The grants are charged to the departmental expenditure of the Department of Primary Industry.

(j) *Expansion of Agricultural Advisory Services.* These payments were introduced in 1952–53 to encourage expansion of agricultural advisory services by the State Departments of Agriculture and to promote increased farm efficiency. The payments are charged to the departmental expenditure of the Department of Primary Industry.

(k) *Grants for Railway Standardization.—South Australia.* Under the Railway Standardization (South Australia) Agreement Act 1949, the Commonwealth is providing funds for the conversion of lines in the south-eastern division of the State as an initial step towards eventual standardization of 4' 8½" gauge. The State is to repay three-tenths of the cost of this work over a period of 50 years and is to bear the full cost of subsequent conversion from broad to standard gauge.

Albury to Melbourne. Under the Railway Standardization (New South Wales and Victoria) Agreement Act 1958 the Commonwealth has agreed to provide funds for the construction of a standard gauge rail link between Albury and Melbourne on the basis that the States of Victoria and New South Wales will each bear 15 per cent. of the cost by instalments over a period of 50 years.

The total expenditure on Railway Standardization (the 30 per cent. advances to the States and the 70 per cent. grants to the States) is charged to the Capital Works and Services vote of the Department of Shipping and Transport.

12. **Other Expenditure.**—Expenditure under this item represents the proceeds of special industry taxes and profits from marketing schemes which are paid to trust funds or other authorities for the purposes of the industries concerned. Information relating to the taxes levied is given in sub-section B. Revenue, of this section (see p. 816). Details of expenditure from the trust funds are included in § 3, *Commonwealth Trust Funds*. Details of expenditure from the Consolidated Revenue Fund during the last five years are given in the following table.

**OTHER EXPENDITURE : RECEIPTS AND EXPENDITURE FROM
COMMONWEALTH CONSOLIDATED REVENUE FUND.
(£'000.)**

Receipts from—	Expenditure on—	1955–56.	1956–57.	1957–58.	1958–59.	1959–60.
<i>Taxes—</i>						
Export Charges ..	Export Control Boards (a) ..	414	375	390	566	540
Stevedoring Industry Charge ..	Stevedoring Industry Board ..	973	1,926	3,337	4,572	3,718
Tobacco Charge ..	Tobacco Industry (b) ..	5	41	61	72	112
Wheat Export Charge ..	Wheat Industry Price Stabilization (c) ..	4,294	..	443	1,211	1
Wheat Tax ..	Wheat Research (d) ..	..	..	185	207	187
Wool Tax ..	Wool Use Promotion and Research ..	851	979	1,328	1,389	1,542
Dairy Produce Levy ..	Dairy Produce Research and Sales Promotion ..	..	..	..	151	334
Canning Fruit Charge ..	Canned Fruit Sales Promotion ..	..	..	..	..	35
<i>Total ..</i>	<i>.. ..</i>	<i>6,537</i>	<i>3,321</i>	<i>5,744</i>	<i>8,168</i>	<i>6,469</i>
<i>Other—</i>						
Meat Export Deficiency Payments—United Kingdom Government ..	Australian Meat Board ..	153	3,254	5,927	..	..
Other ..	.. ..	973	1,035	737	..	..
<i>Total ..</i>	<i>.. ..</i>	<i>1,126</i>	<i>4,289</i>	<i>6,664</i>	<i>..</i>	<i>..</i>
Grand Total ..	.. ..	7,663	7,610	12,408	8,168	6,469

(a) Paid to Apple and Pear Export Fund, Canned Fruits Export Fund, Dairy Produce Export Fund, Dried Fruits Export Fund, Egg Export Fund and Wine Export Fund. (b) Paid to Tobacco Industry Trust Fund. (c) Paid to Wheat Prices Stabilization Fund. (d) Paid to Wheat Research Fund.

§ 3. Commonwealth Trust Funds.

1. Receipts, Expenditure and Balances, 1959-60.—The following table shows the opening and closing balances and receipts and expenditure of some of the more important Trust Funds of the Commonwealth for the year ended 30th June, 1960.

COMMONWEALTH TRUST FUNDS: RECEIPTS, EXPENDITURE AND BALANCES, 1959-60.

(£'000.)

Fund.	Balance at 30th June, 1959.	Year ended 30th June, 1960.		Balance at 30th June, 1960.
		Receipts.	Expenditure.	
Canadian Loan	6,958	347	237	7,068
Coal Mining Industry Long Service Leave	2,057	573	521	2,109
Coinage .. .. .	..	2,279	2,279	..
Commonwealth Aid Roads	1,285	419	1,704	..
Commonwealth Aid Roads (Supplementary)	2,124	—1,823	132	169
Defence Forces Retirement Benefits ..	11,246	4,332	2,034	13,544
Enemy Subjects	72	11	28	55
Insurance Deposits	5,591	765	340	6,016
International Development and Relief ..	167	345	356	156
Korean Operations Pool	12,046	4,798	5,380	11,464
Lend Lease Settlement	1,036	45	264	817
Loan Consolidation and Investment Reserve	237,373	50,898	79,961	208,310
National Debt Sinking Fund	207,720	71,137	95,253	183,604
National Welfare	198,997	301,365	299,363	200,999
Parliamentary Retiring Allowances ..	336	97	51	382
Public Trustee and Custodian	10	44	49	5
Superannuation	62,844	16,695	8,261	71,278
Swiss Loan	14,115	596	127	14,584
Temple Society	460	380	279	561
Tobacco Industry	75	180	164	91
War Service Homes .. .. .	..	36,186	36,186	..
War Service Homes—Insurance	697	246	196	747
Wheat Industry Stabilization	297	..	31	266
Wheat Prices Stabilization	10,537	491	—2	11,030
Wheat Research	551	360	311	600
Wine Research	435	19	29	425
Wool Disposals Profit	347	—243	25	79
Wool Research	6,661	4,449	1,892	9,218
Other	26,062	420,839	422,648	24,253
Total	810,099	915,830	958,099	767,830

2. Summary, 1955-56 to 1959-60.—In the following table, the balances and total receipts and expenditure of the Trust Funds are shown for each of these years.

COMMONWEALTH TRUST FUNDS.

(£'000.)

Particulars.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
Balances brought forward	733,398	818,390	904,447	888,033	810,099
Receipts	843,177	907,151	910,244	880,171	915,830
Expenditure	758,185	821,094	926,658	958,105	958,099
Balance carried forward	818,390	904,447	888,033	810,099	767,830

§ 4. Commonwealth Loan Fund.

Brief historical notes relating to the Commonwealth Loan Fund are given in earlier issues of the Official Year Book (*see* No. 37, p. 640). In the following table, details are given of the net expenditure from the Commonwealth Loan Fund for the years 1955–56 to 1959–60 and of the aggregate expenditure to 30th June, 1960. The figures shown represent “net” loan expenditure, i.e., after adjustments have been made for refunds of amounts expended in earlier years.

COMMONWEALTH NET EXPENDITURE FROM LOAN FUND.
(£'000.)

Particulars.	1955–56.	1956–57.	1957–58.	1958–59.	1959–60.	Total to 30th June, 1960.
War Loans—						
Defence and War (1914–18, 1939–45) Services	(a)7,622	(a)8,019	(a)8,703	(a)5,700	(a)6,937	2,042,699
Defence Services—						
General Services, Works, Armaments, etc.	..	..	..	37,308	11,987	49,295
Other Loans—						
Capital Works and Services—						
Defence(b) .. .. .	..	..	..	— 2	— 17	8,663
Repatriation Services(b)—						
War Service Homes(b) .. .. .	..	..	..	..	..	7,329
Other .. .. .	..	..	..	..	..	47
Postmaster-General's Department	..	— 6	— 3	2	— 1	40,414
Broadcasting Services .. .. .	..	..	..	..	..	104
Railways	— 5	..	— 3	— 42	— 20	13,679
Territories(c)	— 4	— 3	— 4	— 3	..	8,706
Other—						
Ships, Yards and Docks .. .. .	..	..	..	..	..	7,694
Civil Aviation .. .. .	..	..	..	..	..	213
Immigration .. .. .	..	..	..	..	..	1,681
Emergency Wheat Storage	3,182	— 60	— 30	— 21	..	3,071
All other works, buildings, etc.	..	..	..	— 1	— 5	4,218
Other Purposes—						
Assistance to States—						
Farmers' Debt Adjustment .. .. .	..	..	..	..	..	7,967
Housing	33,200	32,150	33,160	35,810	36,080	377,759
Other .. .. .	..	..	..	..	..	5,976
Wheat Bounty .. .. .	..	..	..	..	..	3,430
Loan (Qantas Empire Airways) .. .. .	..	3,899	3,311	6,033	4,646	17,889
Loan (Australian National Airlines Commission) .. .. .	..	..	..	1,337	..	1,337
Total Capital Works and Services and Other Purposes	36,373	35,980	36,431	43,113	40,683	510,177
International Bank Dollar Loan(d)	19,369	5,367	14,565	7,492	..	137,645
Swiss Loan(e) .. .. .	..	..	..	..	..	11,722
Canadian Loan(f)	6,459	..	..	..	..	6,459
Grand Total	69,823	49,366	59,699	93,613	59,607	2,757,997

(a) Financial assistance to the States in connexion with War Service Land Settlement. (b) Excludes amounts charged to War Loan Fund. (c) Includes administration and other public buildings, Australian Capital Territory. (d) Payment to National Debt Sinking Fund. (e) Payment to Swiss Loan Trust Account. (f) Payment to Canadian Loan Trust Account.

NOTE.—Minus sign (—) indicates excess of repayments to Loan Fund.

Information relating to the Commonwealth Government Securities on Issue is given in Division D. Commonwealth and State Government Securities on Issue, of this chapter.

B. STATE FINANCE.

§ 1. General.

1. Functions of State Governments.—In comparing the financial returns of the States, allowances must be made for the various functions discharged by the respective Governments, and for local conditions in each case. Direct comparisons of the revenue, expenditure, and debt of the individual States are difficult, owing to the fact that functions which in

one State are assumed by the Central Government are in another delegated to municipal or semi-governmental bodies which are vested with certain defined borrowing powers and whose financial transactions are not included with those of the Central Government. Care, is needed therefore, in making comparisons, and the particulars contained in this chapter should be read with those contained in Chapter XIX.—Local Government. In many respects, moreover, the budgets of the Australian Governments differ materially from those of most European countries, owing to the inclusion therein of the revenue and expenditure of departments concerned with rendering public services, such as railways, tramways, water supply, etc., which in other countries are often left to private enterprise.

2. *Accounts of State Governments.*—The various financial transactions of the States are in each case mainly concerned with one or other of three Funds—the Consolidated Revenue Fund, the Trust Fund, and the Loan Fund. All revenue (except certain items paid into special funds) collected by a State is paid into its Consolidated Revenue Fund, from which payments are made under authority of an annual Appropriation Act passed by the Legislature, or by a permanent appropriation under a special act.

Figures in § 2 below relating to New South Wales represent the transactions of the Consolidated Revenue Fund and the business undertakings included in the annual budget papers. These latter are as follows:—Railways, Tramways and Omnibuses, and Sydney Harbour Trust Section of the Maritime Services Board. Adjustments have been made to the Budget figures, however, in order to eliminate duplications caused by inter-fund payments. Particulars for all other States relate to the transactions of the Consolidated Revenue Fund.

The Trust Fund comprises all moneys held in trust by the Government, and includes such items as superannuation funds, road funds, insurance companies' deposits, etc.

The Loan Fund is debited with all loan moneys raised by the State, and credited with the expenditure therefrom on public works or other purposes.

3. *Inter-relation of Commonwealth and State Finances.*—A statement in some detail, covering the inter-relation of Commonwealth and State finances during the period from the inception of Federation to the passing of the Financial Agreement Act 1928, was published in Official Year Book No. 22, pages 379–380. Changes in the financial relations between the Commonwealth and States since the passing of the Financial Agreement Act have been described in issues of the Official Year Book from year to year (*see also* pp. 853–5).

§ 2. State Consolidated Revenue Funds.

A. REVENUE.

1. General.—The principal sources of State revenue are:—

(a) Taxation; (b) the business undertakings controlled by the State Governments; (c) sale of and rental from crown lands; (d) interest on advances; (e) payments by Commonwealth Government under the Financial Agreement, Special Grants and Financial Assistance Acts, etc.; (f) Commonwealth National Welfare Fund payments; and (g) miscellaneous sources, comprising fines, fees, etc.

Of these sources, that yielding the largest revenue to the Consolidated Revenue Funds for the States as a whole in the year 1959–60 was Commonwealth payments under financial assistance and other grants (37.5 per cent. of the total revenue). Next in magnitude was the group of business undertakings (31.9 per cent.), the principal contributors being the government railways and tramways, followed by taxation receipts (16.7 per cent.). More than one-quarter of the total State taxation collections are not paid into Consolidated Revenue Funds, however, but into special funds (*see para. 3 (ii) (b) following*). Of the remaining sources of revenue, interest (n.e.i.) constituted 3.7 per cent., land revenue 2.1 per cent., and National Welfare Fund payments 1.6 per cent.

2. *Revenue Received.*—The following table shows particulars of the total amounts, and the amounts per head of population, of consolidated revenue received by the several States during the years 1955–56 to 1959–60.

STATE CONSOLIDATED REVENUE.

Year.	N.S.W.(a)	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
TOTAL REVENUE. (£'000.)							
1955-56 ..	204,399	123,152	75,669	55,352	49,612	17,827	526,011
1956-57 ..	223,829	133,254	85,158	61,561	54,331	18,801	576,934
1957-58 ..	231,510	142,336	87,955	66,342	57,054	19,986	605,183
1958-59 ..	239,769	151,248	99,007	68,030	60,068	21,837	639,959
1959-60 ..	262,533	168,310	103,103	76,077	64,388	25,099	699,510

PER HEAD OF POPULATION. £ s. d.							
1955-56 ..	57 19 11	48 0 4	55 18 10	66 6 8	74 3 1	55 17 0	56 15 6
1956-57 ..	62 7 8	50 9 6	61 13 9	71 9 4	79 7 5	57 12 11	60 17 1
1957-58 ..	63 5 8	52 11 6	62 13 7	74 17 7	81 13 6	59 16 5	62 9 5
1958-59 ..	64 7 0	54 9 9	69 8 7	74 18 0	84 6 8	63 19 9	64 14 3
1959-60 ..	69 4 4	59 0 8	71 4 2	81 9 11	88 15 11	72 5 3	69 5 5

(a) See § 1, para. 2, p. 839.

3. Sources of Revenue.—(i) *General.* Classifying the revenue of the several States in the manner indicated in para. 1 above, particulars for the year 1959-60 were as follows:—

STATE CONSOLIDATED REVENUE : SOURCES, 1959-60.

Source of Revenue.	N.S.W. (a)	Vic.	Q'land.	S. Aust.	W. Aust.	Tas. (b)	Total.
TOTAL REVENUE. (£'000.)							
Taxation(c) ..	43,147	37,829	15,000	11,148	6,007	3,989	117,120
Business Undertakings ..	99,850	47,518	34,846	20,690	19,891	58	222,853
Lands ..	4,794	3,279	3,619	613	1,439	580	14,324
Interest, n.e.i. ..	1,852	6,236	4,105	6,278	2,848	4,255	25,574
Commonwealth Grants(d)—							
Financial Assistance ..	83,450	60,625	36,375	27,675	25,462	10,913	244,500
Other(e) ..	3,394	2,127	1,500	3,032	3,974	3,667	17,694
Commonwealth National							
Welfare Fund Payments(f)	6,162	1,143	2,257	1,058	533	304	11,457
Miscellaneous ..	19,884	9,553	5,401	5,583	4,234	1,333	45,988
Total ..	262,533	168,310	103,103	76,077	64,388	25,099	699,510

PER HEAD OF POPULATION. (£ s. d.)							
Taxation(c) ..	11 7 6	13 5 4	10 7 0	11 18 10	8 5 8	11 9 8	11 12 0
Business Undertakings ..	26 6 6	16 13 4	24 1 4	22 3 3	27 8 8	0 3 4	22 1 5
Lands ..	1 5 4	1 3 0	2 10 0	0 13 2	1 19 8	1 13 5	1 8 4
Interest, n.e.i. ..	0 9 9	2 3 9	2 16 9	6 14 6	3 18 7	12 5 0	2 10 8
Commonwealth Grants(d)—							
Financial Assistance ..	22 0 0	21 5 4	25 2 6	29 12 11	35 2 3	31 8 5	24 4 3
Other(e) ..	0 17 11	0 14 11	1 0 9	3 4 11	5 9 7	10 11 2	1 15 0
Commonwealth National							
Welfare Fund Payments(f)	1 12 6	0 8 0	1 11 3	1 2 8	0 14 9	0 17 6	1 2 8
Miscellaneous ..	5 4 10	3 7 0	3 14 7	5 19 8	5 16 9	3 16 9	4 11 1
Total ..	69 4 4	59 0 8	71 4 2	81 9 11	88 15 11	72 5 3	69 5 5

(a) See § 1, para. 2, p. 839. (b) Tasmanian Transport Services are under separate control of Transport Commission. (c) In all States certain taxation collections are not paid into Consolidated Revenue Fund. For total collections see next page. (d) Excludes Commonwealth payments paid to Trust Funds. (e) Includes payments under Financial Agreement, Special Grants, Financial Assistance, Grants to Universities, etc. (f) Consolidated Revenue Fund receipts only. Excludes payments to Trust Funds.

(ii) *Revenue from Taxation.* (a) *General.* In the tables on taxation collections in these paragraphs, the collections have been grouped according to the nature of the tax rather than the method of collection. For example, stamp duties on betting tickets and bookmakers' licences have been included under "Racing Tax" instead of under "Stamp Duties" and "Licences" respectively.

Prior to federation, customs and excise duties were the principal source of revenue from taxation. Thereafter, until the introduction of the uniform income tax scheme in 1942-43, the most productive State taxes were the various income taxes which, in 1941-42, included unemployment relief, State development and hospital taxes. From 1942-43 to 1958-59, the States were reimbursed by the Commonwealth for the revenue lost by the discontinuance of these taxes. Commencing with 1959-60, however, a new scheme for the payment of financial assistance to the States was instituted (for details *see* C., para. 11 (v), p. 833). Information relating to the State income taxes which were levied prior to 1942-43 may be found in earlier issues of the Official Year Book.

(b) *Net Collections, 1959-60.* The following tables show, for the year 1959-60, details of the collections in each State from the various types of tax in operation, irrespective of whether such moneys have been paid into the Consolidated Revenue Funds or not. For this reason, the particulars hereunder differ from those shown in the tables relating to the Consolidated Revenue Funds and represent a comprehensive statement of all taxation collections by the Government in each State.

STATE REVENUE FROM TAXATION : TOTAL NET COLLECTIONS(a) 1959-60.
(£'000.)

Tax.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
<i>Motor—</i>							
Registration Fees and Taxes	11,093	9,482	5,405	3,801	2,431	1,127	33,339
Drivers', etc., Licences	1,324	905	306	362	216	108	3,221
Other	4,622	3,494	1,516	76	60	137	9,905
<i>Total Motor</i>	<i>17,039</i>	<i>13,881</i>	<i>7,227</i>	<i>4,239</i>	<i>2,707</i>	<i>1,372</i>	<i>46,465</i>
Probate and Succession Duties	14,465	9,413	5,738	2,360	1,304	711	33,991
Stamp Duties, n.e.i.	15,230	12,471	4,499	2,092	1,788	821	36,901
Land	6,622	5,854	1,572	1,360	1,299	513	17,220
Liquor	3,700	2,994	995	208	456	270	8,623
Lotteries .. ..	..	2,966	329	..	..	149	3,444
Racing	2,957	2,630	423	1,077	792	383	8,262
Entertainments .. ..	..	1,142	..	..	269	198	1,609
Poker Machines Licence Fees	1,265	..	..	..	..	..	1,265
Licences, n.e.i.	165	287	207	82	68	11	820
Other	8	..	1,923	104	344	..	2,379
<i>Grand Total</i>	<i>61,451</i>	<i>51,638</i>	<i>22,913</i>	<i>11,522</i>	<i>9,027</i>	<i>4,428</i>	<i>160,979</i>

(a) From all sources of taxation irrespective of whether paid to Consolidated Revenue Fund or to other funds.

Of the total taxation collections detailed above, the following were paid into special funds:—

STATE REVENUE FROM TAXATION : PAYMENTS INTO SPECIAL FUNDS,
1959-60.
(£'000.)

Tax.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Motor	17,039	13,391	6,164	..	2,676	259	39,529
Stamp Duties, n.e.i. .. ..	..	225	..	..	..	..	225
Liquor .. ..	..	193	..	..	..	..	193
Lotteries .. ..	..	..	..	..	..	10	10
Racing .. ..	..	..	..	374	..	170	544
Poker Machines Licence Fees	1,265	..	..	..	..	..	1,265
Other .. ..	..	..	1,749	..	344	..	2,093
<i>Total</i>	<i>18,304</i>	<i>13,809</i>	<i>7,913</i>	<i>374</i>	<i>3,020</i>	<i>439</i>	<i>43,859</i>

The table hereunder shows, for the year 1959–60, the proportions of collections under individual classes of tax to the total taxation revenue:—

STATE REVENUE FROM TAXATION: PROPORTIONS OF INDIVIDUAL TAXES TO TOTAL, 1959–60.

(Per cent.)

Tax.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Motor ..	27.73	26.88	31.54	36.79	29.99	30.99	28.86
Probate and Succession ..							
Duties ..	23.54	18.23	25.04	20.48	14.45	16.06	21.12
Stamp Duties, n.e.i. ..	24.78	24.15	19.64	18.16	19.80	18.53	22.92
Land ..	10.78	11.34	6.86	11.80	14.40	11.58	10.70
Liquor ..	6.02	5.80	4.34	1.81	5.05	6.09	5.36
Lotteries ..		5.74	1.44			3.36	2.14
Racing ..	4.81	5.09	1.85	9.34	8.77	8.66	5.13
Entertainments ..		2.21			2.98	4.48	1.00
Poker Machines Licence Fees ..	2.06						0.78
Licences, n.e.i. ..	0.27	0.56	0.90	0.72	0.75	0.25	0.51
Other ..	0.01		8.39	0.90	3.81		1.48
Grand Total ..	100.00	100.00	100.00	100.00	100.00	100.00	100.00

(c) *Net Collections, 1955–56 to 1959–60.* The total amounts and the amounts per head raised from all sources of taxation by the several State Governments, including amounts not paid into the Consolidated Revenue Fund, during the years 1955–56 to 1959–60 are shown in the following table:—

STATE REVENUE FROM TAXATION: TOTAL NET COLLECTIONS.(a)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
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TOTAL NET COLLECTIONS.
(£'000.)

1955–56 ..	34,931	30,004	14,724	8,497	5,670	4,175	98,001
1956–57 ..	43,195	34,960	15,666	9,734	6,493	4,487	114,535
1957–58 ..	48,552	40,111	17,371	10,173	7,761	4,086	128,054
1958–59 ..	54,006	42,777	18,509	10,576	7,655	4,307	137,830
1959–60 ..	61,451	51,638	22,913	11,522	9,027	4,428	160,979

PER HEAD OF POPULATION.
(£ s. d.)

1955–56 ..	9 18 3	11 14 0	10 17 8	10 3 7	8 9 6	13 1 7	10 11 7
1956–57 ..	12 0 9	13 4 10	11 7 0	11 6 0	9 9 9	13 15 2	12 1 8
1957–58 ..	13 5 5	14 16 4	12 7 7	11 9 8	11 2 3	12 4 7	13 4 4
1958–59 ..	14 9 11	15 8 3	12 19 7	11 12 10	10 15 0	12 12 5	13 18 9
1959–60 ..	16 4 0	18 2 3	15 16 6	12 6 10	12 9 0	12 15 0	15 18 10

(a) Excludes Commonwealth Tax Reimbursements up to 1958–59. See text on p. 841.

The following table shows for the years 1955–56 to 1959–60 the aggregate amounts collected by the several State Governments under the various forms of State taxation, and includes amounts paid to funds other than Consolidated Revenue.

STATE REVENUE FROM TAXATION: TOTAL NET COLLECTIONS.(a)
(£'000.)

Tax.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
Motor	28,919	33,539	37,520	41,905	46,465
Probate and Succession Duties	23,388	24,377	25,680	27,177	33,991
Stamp duties, n.e.i.	18,181	21,336	24,527	28,317	36,901
Land	5,969	11,826	15,396	15,424	17,220
Liquor	6,617	7,220	8,095	8,483	8,623
Lotteries	4,256	4,333	3,602	3,434	3,444
Racing	7,430	7,495	7,870	7,540	8,262
Entertainments	1,446	1,838	1,982	1,846	1,609
Poker Machines Licence Fees .. .. .	..	764	835	906	1,265
Licences and all other	1,795	1,807	2,547	2,798	3,199
Total	98,001	114,535	128,054	137,830	160,979

(a) From all sources of taxation irrespective of whether paid to Consolidated Revenue or to other funds. Excludes Commonwealth Tax Reimbursements up to 1958-59. See text on p.841.

Details of taxation collections paid into special funds and included in the above table are shown below:—

STATE REVENUE FROM TAXATION: PAYMENTS INTO SPECIAL FUNDS.
(£'000.)

Tax.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
Motor	23,718	27,803	31,593	35,746	39,529
Stamp Duties, n.e.i.	180	190	188	220	225
Land .. .. .	..	100	100	..	..
Liquor	135	193	219	168	193
Lotteries	101	82	60	31	10
Racing	596	596	573	521	544
Poker Machines Licence Fees .. .. .	..	764	835	906	1,265
Other	864	846	1,510	1,741	2,093
Total	25,594	30,574	35,078	39,333	43,859

(iii) *Business Undertakings.* (a) 1959-60. A very large proportion of State gross revenue is made up of receipts from business undertakings under the control of the Governments. The most important of these are railways and tramways, harbour works, water supply and sewerage, and electricity supply, and, in addition, State batteries for the treatment of auriferous ores in Western Australia and various minor revenue-producing services rendered by the Governments of all States are included. For the year 1959-60, the revenue from these sources was £222,853,000 or 31.9 per cent. of the revenue from all sources. Details of revenue are as follows:—

STATE REVENUE FROM BUSINESS UNDERTAKINGS, 1959-60.
(£'000.)

Source.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.(a)	Total.
Railways(b)	83,563	39,032	34,846	12,646	14,771	..	184,858
Tramways and Omnibuses	12,960	..	..	..	891	..	13,851
Harbours, Rivers, Lights	3,327	(c) 613	..	2,304	492	..	6,736
Water Supply, Sewerage, Irrigation and Drainage .. .. .	..	4,115	..	5,465	3,342	..	12,922
Electricity Supply .. .. .	..	2,941	..	..	..	..	2,941
Other .. .. .	..	817	..	275	395	58	1,543
Total	99,850	47,518	34,846	20,690	19,891	58	222,853

(a) Tasmanian transport services are under the separate control of the Transport Commission.

(b) The following contributions to Railways revenue from Consolidated Revenue Fund are excluded—New South Wales, £1,000,000; South Australia, £4,200,000. (c) Includes Harbour Trust Fund contribution, £443,000.

(b) 1955–56 to 1959–60. The total revenue from business undertakings and the revenue per head in each State are shown in the following table:—

STATE REVENUE FROM BUSINESS UNDERTAKINGS.							
Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Total.
TOTAL REVENUE. (£'000.)							
1955–56 ..	89,496	44,160	30,404	18,435	17,405	..	199,900
1956–57 ..	95,836	44,393	35,583	19,484	19,057	..	214,353
1957–58 ..	91,153	43,775	34,135	20,778	17,751	..	207,592
1958–59 ..	92,186	46,258	35,129	20,303	18,620	..	212,496
1959–60 ..	99,850	47,518	34,846	20,690	19,891	58	222,853
PER HEAD OF POPULATION. (£. s. d.)							
1955–56 ..	25 7 10	17 4 4	22 9 7	22 1 10	26 0 4	..	21 11 6
1956–57 ..	26 14 2	16 16 4	25 15 6	22 12 5	27 16 9	..	22 12 2
1957–58 ..	24 18 4	16 3 5	24 6 6	23 9 1	25 8 3	..	21 8 7
1958–59 ..	24 14 10	16 13 3	24 12 8	22 7 1	26 2 10	..	21 9 9
1959–60 ..	26 6 6	16 13 4	24 1 4	22 3 3	27 8 8	0 3 4	22 1 5

(a) Tasmanian transport services are under the control of the Transport Commission.

In the table below, particulars of total State revenue from business undertakings for the various types of undertakings are shown for the years 1955–56 to 1959–60:—

STATE REVENUE FROM BUSINESS UNDERTAKINGS. (£'000.)					
Source.	1955–56.	1956–57.	1957–58.	1958–59.	1959–60.
Railways, Tramways and Omnibuses	181,185	194,753	185,817	189,773	198,709
Harbour Services	5,833	5,832	5,961	6,158	6,736
Water Supply, Sewerage, Irrigation and Drainage ..	8,997	9,903	11,835	12,315	12,922
Other	3,885	3,865	3,979	4,250	4,486
Total	199,900	214,353	207,592	212,496	222,853

For further information on the finances of the various types of business undertakings in the States, see Chapters XIV.—Transport and Communication and XIX.—Local Government, of this Year Book.

(iv) *Lands.* The revenue from the sale and rental of Crown lands has, with few exceptions, been treated from the earliest times as forming part of the Consolidated Revenue Funds, and has been applied to meet ordinary expenses. The following table shows the revenue from sales and rentals of Crown lands for the year 1959–60.

STATE LAND REVENUE, 1959–60. (£'000.)							
Source.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Sales ..	548	247	..	69	56	16	936
Conditional Purchases ..	212	..	..	4	166	..	382
Rentals(a) ..	2,590	557	3,411	232	298	37	7,125
Forestry ..	1,354	2,342	..	..	919	513	5,128
Other ..	90	133	208	308	..	14	753
Total ..	4,794	3,279	3,619	613	1,439	580	14,324

(a) Includes mining royalties, rents, etc.

The total land revenue for all States for the years 1955-56 to 1959-60 respectively was:—£13,895,000, £15,455,000, £15,050,000, £12,890,000 and £14,324,000.

(v) *Commonwealth Grants.* Commonwealth grants to the States represent a considerable proportion of the States' Revenue. In 1959-60, the total amount (excluding sundry minor items) paid to the Consolidated Revenue Funds of the States was £262,194,000 (37.5 per cent.). Details for 1959-60 were as follows:—Contribution towards interest on States' debts under the Financial Agreement, £7,585,000; special grants to the States of South Australia, Western Australia and Tasmania, £8,326,000; financial assistance, £244,500,000; grants to universities, £1,298,000; and other grants, £485,000.

In addition to these, the States receive a number of other grants which are paid to trust funds. The main items in this class are the contribution to the sinking fund on States' debts (£5,942,000 in 1959-60) paid to the National Debt Sinking Fund; grants for Commonwealth Aid Roads (£43,923,000 in 1959-60), and grants for Universities, £6,330,000 in 1959-60) paid to State trust funds.

More detailed information concerning Commonwealth grants to the States is given on pages 829-36.

(vi) *Commonwealth National Welfare Fund Payments.* The States also receive payments from the Commonwealth in respect of hospital and pharmaceutical benefits, nutrition of children and reimbursement of maintenance expenditure on tuberculosis sanatoria. These receipts are paid into Consolidated Revenue Funds or Trust Funds according to the varying accounting procedures in the States. In 1959-60, the total amount paid to State Consolidated Revenue Funds was £11,457,000 (1.6 per cent.). This amount was made up of hospital benefits, £4,376,000; pharmaceutical benefits, £1,422,000; nutrition of children, £1,287,000; and tuberculosis—reimbursement of maintenance expenditure, £4,372,000.

(vii) *Interest and Miscellaneous.* In addition to the foregoing, there are in each State several miscellaneous sources of revenue, including such items as interest, fines, fees, etc. Interest, mainly from loans to local governing bodies, on public account balances, and for soldier land settlement amounted to £25,574,000 in 1959-60, while "Miscellaneous" revenue, which includes fines of the courts and fees for services, amounted to £45,988,000 in 1959-60.

B. EXPENDITURE.

1. *General.*—The principal heads of State expenditure from Consolidated Revenue Funds are:—

(a) Interest, exchange and debt redemption charges in connexion with public debt; (b) working expenses of business undertakings; (c) education; (d) health and charitable expenditure; (e) justice; (f) police; (g) penal establishments; and (h) all other expenditure, under which heading are included public works, lands and surveys, agriculture and forestry, legislative and general administration, pensions, and miscellaneous.

The working expenses of railways and tramways are the largest item of State Government expenditure. In 1959-60, the working expenses of the railways, tramways and omnibuses were 27.5 per cent. of the total expenditure from the State Consolidated Revenue Funds; next in magnitude were education, 18.6 per cent.; debt charges, 16.6 per cent.; charitable, public health and hospitals, 14.2 per cent.; and law, order and public safety, 5.7 per cent.

As stated at the beginning of this division, figures relating to New South Wales represent the transactions of the Consolidated Revenue Fund and the business undertakings included in the annual budget papers. These latter are as follows:—Railways, Tramways and Omnibuses, and Sydney Harbour Trust Section of the Maritime Services Board. Adjustments have been made to the Budget figures, however, in order to eliminate duplications caused by inter-fund payments. Particulars for all other States relate to the transactions of the Consolidated Revenue Fund.

2. **Total Expenditure.**—The total expenditure from the Consolidated Revenue Funds of the several States and the expenditure per head of population during each of the years 1955-56 to 1959-60 are shown in the following table.

STATE EXPENDITURE : CONSOLIDATED REVENUE FUNDS.

Year.	N.S.W.(a)	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
TOTAL EXPENDITURE. (£'000.)							
1955-56 ..	211,232	126,398	77,392	56,782	51,443	17,712	540,959
1956-57 ..	223,700	137,565	85,142	61,610	56,243	19,615	583,875
1957-58 ..	231,464	145,549	89,470	66,742	58,177	20,798	612,200
1958-59 ..	239,727	153,796	100,198	69,057	61,753	22,745	647,276
1959-60 ..	262,463	167,997	103,267	76,389	65,794	26,131	702,041

PER HEAD OF POPULATION.

(£ s. d.)

1955-56 ..	59 18 8	49 5 7	57 4 4	68 0 11	76 17 10	55 9 10	58 7 10
1956-57 ..	62 6 11	52 2 1	61 13 6	71 10 6	82 3 4	60 2 10	61 11 9
1957-58 ..	63 5 5	53 15 3	63 15 2	75 6 7	83 5 8	62 5 0	63 3 11
1958-59 ..	64 6 10	55 8 2	70 5 3	76 0 7	86 14 0	66 12 11	65 9 0
1959-60 ..	69 4 0	58 18 5	71 6 5	81 16 7	90 14 9	75 4 8	69 10 6

(a) See para. 1, page 845, for transactions included.

3. **Details of Expenditure.**—(i) 1959-60. The following tables show the total expenditure and expenditure per head of population for each of the principal items:—

STATE EXPENDITURE: DETAILS, 1959-60.

Particulars.	N.S.W.(a)	Vic.	Q'land.	S.Aust.	W.Aust.	Tas.(b)	Total.
TOTAL EXPENDITURE. (£'000.)							
Debt (interest, ex- change, debt redemption, etc.)	33,839	29,646	15,681	17,907	12,050	7,727	116,850
Railways	72,114	37,098	37,325	14,052	16,707	915	178,211
Tramways and Omnibuses ..	13,570	..	..	..	1,266	235	15,071
Harbours and Rivers, etc. ..	2,286	510	..	1,394	581	15	4,786
Water Supply, Sewerage, Irrigation and Drainage ..	..	3,703	..	4,182	2,907	184	10,976
Other Business and Indus- trial Undertakings .. ..	..	819	72	255	1,389	153	2,688
Education	51,432	35,569	15,138	12,803	10,266	5,433	130,641
Health and Charitable	36,464	25,490	16,138	8,936	8,760	3,618	99,406
Justice	3,775	2,135	1,180	499	579	267	8,435
Police	9,444	7,232	4,203	2,118	1,949	958	25,904
Penal establishments	2,173	1,000	411	544	339	209	4,676
Public Safety	614	8	348	85	147	60	1,262
All other expenditure	36,752	24,787	12,771	13,614	8,854	6,357	103,135
Total	262,463	167,997	103,267	76,389	65,794	26,131	702,041

(a) See para. 1, page 845, for transactions included. (b) Tasmanian transport services are under the separate control of the Transport Commission. Figures shown for relevant items represent payments to the Commission.

STATE EXPENDITURE: DETAILS, 1959-60—continued.

Particulars.	N.S.W. (a)	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.(b)	Total.
PER HEAD OF POPULATION. (£ s. d.)							
Debt (interest, exchange, debt redemption, etc.)	8 18 5	10 7 11	10 16 7	19 3 8	16 12 4	22 4 11	11 11 5
Railways ..	19 0 3	13 0 3	25 15 7	15 1 1	23 0 10	2 12 8	17 13 0
Tramways and Omnibuses ..	3 11 7	..	..	..	1 14 11	0 13 6	1 9 10
Harbours and Rivers, etc. ..	0 12 1	0 3 7	..	1 9 10	0 16 0	0 0 10	0 9 6
Water Supply, Sewerage, Irrigation and Drainage ..	..	1 6 0	..	4 9 7	4 0 2	0 10 7	1 1 9
Other Business and Industrial Undertakings ..	..	0 5 9	0 1 0	0 5 5	1 18 4	0 8 10	0 5 4
Education ..	13 11 2	12 9 6	10 9 1	13 14 4	14 3 2	15 12 10	12 18 9
Health and Charitable ..	9 12 3	8 18 10	11 2 11	9 11 5	12 1 8	10 8 4	9 16 11
Justice ..	0 19 11	0 15 0	0 16 3	0 10 8	0 16 0	0 15 5	0 16 8
Police ..	2 9 10	2 10 9	2 18 1	2 5 4	2 13 9	2 15 2	2 11 4
Penal establishments ..	0 11 6	0 7 0	0 5 8	0 11 8	0 9 4	0 12 1	0 9 3
Public safety ..	0 3 3	..	0 4 10	0 1 10	0 4 1	0 3 5	0 2 6
All other expenditure	9 13 9	8 13 10	8 16 5	14 11 9	12 4 2	18 6 1	10 4 3
Total	69 4 0	58 18 5	71 6 5	81 16 7	90 14 9	75 4 8	69 10 6

(a) See para. 1, page 845, for transactions included. (b) Tasmanian transport services are under the separate control of the Transport Commission. Figures shown for relevant items represent payments to the Commission.

For further information on the finances of the various types of business undertakings in the States, see Chapters XIV.—Transport and Communication and XIX.—Local Government, of this Year Book.

(ii) 1955-56 to 1959-60. Combined expenditure by the several States for these years on each of the principal items is shown in the following table.

STATE EXPENDITURE.

(£'000.)

Particulars.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
Debt (interest, exchange, debt redemption, etc.) ..	79,540	86,693	97,123	105,051	116,850
Railways, Tramways and Omnibuses (working expenses) ..	185,236	191,921	185,083	182,958	193,282
Harbours and Rivers etc. ..	4,421	4,359	4,537	4,354	4,786
Water Supply, Sewerage, Irrigation and Drainage ..	7,650	8,393	9,498	9,500	10,976
Other Business and Industrial Undertakings ..	3,494	4,150	4,701	3,977	2,688
Education ..	87,110	95,687	104,702	116,546	130,641
Health and Charitable ..	70,888	78,633	84,449	92,057	99,406
Justice ..	6,031	6,599	7,099	7,602	8,435
Police ..	18,788	20,721	22,276	23,888	25,904
Penal Establishments ..	3,207	3,779	4,084	4,340	4,676
Public Safety ..	930	1,702	1,118	1,371	1,262
All other expenditure ..	73,664	81,238	87,530	95,632	103,135
Total ..	540,959	583,875	612,200	647,276	702,041

C. SURPLUS REVENUE.

The following table shows for each of the years 1955-56 to 1959-60 the total amount and amount per head of population of the surplus or deficit of each State:—

STATE SURPLUS REVENUE.

Year.	N.S.W.(a)	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
TOTAL AMOUNT. (£'000.)							
1955-56 ..	-6,833	-3,246	-1,723	-1,430	-1,831	115	-14,948
1956-57 ..	129	-4,311	16	49	-1,912	814	-6,941
1957-58 ..	46	-3,213	-1,515	400	-1,123	812	-7,017
1958-59 ..	42	-2,548	-1,191	-1,027	-1,685	908	-7,317
1959-60 ..	70	313	164	312	-1,406	-1,032	-2,531

PER HEAD OF POPULATION.

(£ s. d.)

1955-56 ..	-1 18 9	-1 5 3	-1 5 6	-1 14 3	-2 14 9	0 7 2	-1 12 4
1956-57 ..	0 0 9	-1 12 7	0 0 3	-0 1 2	-2 15 11	-2 9 11	-0 14 8
1957-58 ..	0 0 3	-1 3 8	-1 1 7	-0 9 0	-1 12 2	-2 8 7	-0 14 5
1958-59 ..	0 0 2	-0 18 5	-0 16 8	-1 2 7	-2 7 4	-2 13 3	-0 14 9
1959-60 ..	0 0 4	0 2 3	-0 2 3	-0 6 8	-1 18 10	-2 19 5	-0 5 1

(a) See para. 1, page 845.

NOTE.—Minus sign (-) indicates deficit.

§ 3. State Trust Funds.

In addition to the moneys received as revenue and paid to the credit of the Consolidated Revenue Funds, considerable sums are held in trust for various purposes by the State Governments. The balances of trust funds held at 30th June for each of the years 1956 to 1960 were as follows:—

STATE TRUST FUND BALANCES.

(£'000.)

At 30th June—	N.S.W.(a)	Vic.	Q'land.	S. Aust.	W.Aust.	Tas.	Total.
1956	40,442	29,850	47,165	4,517	13,535	838	136,347
1957	45,392	32,138	48,034	4,718	14,537	1,151	145,970
1958	51,776	34,415	53,921	5,650	14,565	1,560	161,887
1959	55,093	38,635	53,828	5,057	16,569	2,148	171,330
1960	62,686	42,915	56,022	5,742	18,102	1,930	187,397

(a) Special Deposits Account and Special Accounts.

§ 4. State Loan Funds.

1. **General.**—State public borrowing is due mainly to the fact that the State Governments, in addition to ordinary administrative duties, undertake functions such as the construction and operation of the railway systems, which in other countries are usually entrusted to local authorities or left to private enterprise. Loan moneys have also been largely used for improvements to harbours and rivers, and for the construction of roads, water supply and sewerage works. The State debt thus consists chiefly of moneys raised and expended with the object of assisting the development of the resources of the country, and is to a very large extent represented by tangible assets.

Statements relating to "gross" loan expenditure are shown below. The gross expenditure represents the amounts disbursed during each year. Details of "net" loan expenditure, i.e., gross expenditure less any credits to the Loan Fund during the year on account of repayments of advances to local governing bodies, settlers, etc., the sale of assets, and transfers from other funds, may be found in *Finance, Part I.—Public and Private Finance*, Bulletin No. 50, 1959-60. Such moneys are credited to the Loan Fund in the year of repayment irrespective of when the advance was made.

2. **Gross Loan Expenditure.**—(i) 1959-60. Particulars of gross loan expenditure on works, services, etc., are shown in the following table:—

STATE GROSS LOAN EXPENDITURE ON WORKS, SERVICES, ETC., 1959-60.
(£'000.)

Particulars.	N.S.W.	Vic.(a)	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Public Works and Services—							
Railways ..	11,100	7,814	7,715	2,297	3,250	600	32,776
Tramways and Omnibuses ..	1,250	234	551	..	250	339	1,839
Roads ..	717	1,092	2	85	..	..	..
Bridges ..	4,313	298	..	1,272	970	1,255	9,683
Harbours and Rivers ..	..	..	..	..	..	..	..
Lights and Lighthouses ..	..	7,194	-3,375	6,136	3,295	198	22,533
Water Supply ..	6,048	636	..	1,876	525	..	..
Sewerage ..	10,000	6,500	..	3,000	777	6,633	26,910
Electricity Supply ..	..	90	..	..	..	..	90
Gas Supply ..	21,489	18,693	6,746	6,738	4,416	3,638	61,720
Public Buildings ..	..	..	..	..	..	..	..
Loans and Grants to Local Bodies ..	276	490	12,140	..	211	103	13,220
Housing(b) ..	27	610	1,900	4,298	1,245	276	8,356
Other Public Works, etc.	67	364	..	136	587	369	1,523
Primary Production—							
Soldier Settlement ..	1,389	634	6	2	..	20	2,051
Land for Settlement ..	..	2,817	143	41	..	15	3,016
Advances to Settlers ..	..	30	..	262	..	202	494
Water Conservation ..	..	..	2,185	82	317	..	..
Irrigation and Drainage ..	5,816	..	..	703	666	..	9,769
Vermine-proof Fencing ..	..	2	25	(c)	..	..	27
Agriculture ..	300	..	..	..	207	..	507
Agricultural Bank ..	..	..	470	..	146	..	616
Forestry ..	250	662	1,769	818	100	321	3,920
Mines and Mineral Resources ..	193	67	82	304	298	..	944
Other ..	416	737	..	23	11	75	1,262
Other Purposes ..	..	(d) 527	109	172	745	426	1,979
Total Public Works, Services, etc. ..	63,651	49,491	29,362	28,245	18,016	14,470	203,235
Per Head of Population ..	£16 15 8	£17 7 2	£20 5 7	£30 5 1	£24 16 11	£41 13 2	£20 2 6

(a) Expenditure from Loan Funds and on account of Loans; includes expenditure from Loan Funds, from Treasurer's Advance Account and from State Loans Repayment Fund. (b) Excludes expenditure from Commonwealth Loans under Commonwealth-State Housing Agreement. (c) Included with Advances to Settlers. (d) Includes Rural Finance Corporation, for advances to rural industries, £150,000.

NOTE.—The negative amounts shown for Queensland represent transfers of liability on account of expenditure incurred in earlier years. The amounts involved have been debited against the item Loans and Grants to Local Bodies, and included in the expenditure shown for 1959-60.

(ii) 1955-56 to 1959-60. Particulars of gross loan expenditure on works, etc., for these years are shown in the following table:—

STATE GROSS LOAN EXPENDITURE ON WORKS, SERVICES, ETC.

Year.	N.S.W.	Vic.(a)	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
GROSS, LOAN EXPENDITURE. (£'000.)							
1955-56 ..	55,369	39,131	21,655	29,019	14,983	17,354	177,511
1956-57 ..	54,296	40,950	22,976	26,385	17,936	11,233	173,776
1957-58 ..	57,597	41,338	23,190	24,772	15,914	10,882	173,693
1958-59 ..	60,052	44,421	26,531	27,262	17,689	12,859	188,814
1959-60 ..	63,651	49,491	29,362	28,245	18,016	14,470	203,235

PER HEAD OF POPULATION.

(£ s. d.)

1955-56 ..	15 14 2	15 5 2	16 0 2	34 15 6	22 7 11	54 7 4	19 3 2
1956-57 ..	15 2 8	15 10 3	16 12 10	30 12 8	26 4 1	34 8 10	18 6 7
1957-58 ..	15 14 11	15 5 5	16 10 6	27 19 2	22 15 7	32 11 5	17 18 7
1958-59 ..	16 2 4	16 0 1	18 12 1	30 0 4	24 16 9	37 13 7	19 1 10
1959-60 ..	16 15 8	17 7 2	20 5 7	30 5 1	24 16 11	41 13 2	20 2 6

(a) See footnote (a) to previous table.

The tables above do not include particulars of expenditure on loan discounts and flotations, the funding of deficits, the retirement of treasury bills, and similar items of a nature other than works, services, etc. Summaries of the gross and net expenditure and repayments in respect of all loan purposes for the years 1957-58 to 1959-60 are shown in the next paragraph.

3. **Total Loan Expenditure.**—The following table shows particulars, in summary form, of the total loan expenditure in each State during each of the years, 1957-58 to 1959-60.

STATE LOAN EXPENDITURE: SUMMARY.

(£'000.)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
1957-58.							
<i>Works and Services—</i>							
Gross Expenditure ..	57,597	41,338	23,190	24,772	15,914	10,882	173,693
Net Expenditure ..	52,610	38,421	20,022	21,752	14,136	10,044	156,985
Repayments ..	4,987	2,917	3,168	3,020	1,778	838	16,708
<i>Other than Works, etc.(a)—</i>							
Gross Expenditure ..	—986	3,965	..	57	1,364	813	5,213
Net Expenditure ..	—986	3,965	—590	..	1,308	789	4,486
Repayments ..	..	..	590	57	(b) 56	24	727
Total Loan Expenditure—							
Gross ..	56,611	45,303	23,190	24,829	17,278	11,695	178,906
Net ..	51,624	42,386	19,432	21,752	15,444	10,833	161,471
Repayments ..	4,987	2,917	3,758	3,077	1,834	862	17,435

For footnotes see next page.

STATE LOAN EXPENDITURE: SUMMARY—*continued*.
(£'000.)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
1958-59.							
<i>Works and Services—</i>							
Gross Expenditure ..	60,052	44,421	26,531	27,262	17,689	12,859	188,814
Net Expenditure ..	54,496	41,491	21,025	24,159	16,171	11,673	169,015
Repayments ..	5,556	2,930	5,506	3,103	1,518	1,186	19,799
<i>Other than Works, etc.(a)—</i>							
Gross Expenditure ..	— 1,691	3,000	..	705	— 22	946	2,938
Net Expenditure ..	— 1,691	3,000	400	628	— 111	883	3,109
Repayments ..	..	..	— 400	77	(b) 89	63	— 171
Total Loan Expenditure—							
Gross ..	58,361	47,421	26,531	27,967	17,667	13,805	191,752
Net ..	52,805	44,491	21,425	24,787	16,060	12,556	172,124
Repayments ..	5,556	2,930	5,106	3,180	1,607	1,249	19,628
1959-60.							
<i>Works and Services—</i>							
Gross Expenditure ..	63,651	49,491	29,362	28,245	18,016	14,470	203,235
Net Expenditure ..	57,966	43,674	22,223	25,149	16,252	13,208	178,472
Repayments ..	5,685	5,817	7,139	3,096	1,764	1,262	24,763
<i>Other than Works, etc.(a)—</i>							
Gross Expenditure ..	— 1,166	1,670	..	40	1,082	95	1,721
Net Expenditure ..	— 1,166	1,670	580	..	1,017	14	2,115
Repayments ..	..	..	— 580	40	(b) 65	81	— 394
Total Loan Expenditure—							
Gross ..	62,485	51,161	29,362	28,285	19,098	14,565	204,956
Net ..	56,800	45,344	22,803	25,149	17,269	13,222	180,587
Repayments ..	5,685	5,817	6,559	3,136	1,829	1,343	24,369

(a) Includes exchange, discounts and flotation expenses, revenue and general cash deficits.

(b) From Consolidated Revenue Fund.

NOTE.—Minus sign (—) indicates excess of repayments to loan fund.

Information relating to the State Government Securities on Issue is given in division D. Commonwealth and State Government Securities on Issue (see p. 853)

C. COMMONWEALTH AND STATE FINANCE.

1. Revenue and Expenditure.—(i) *Consolidated Revenue Funds*. The following tables show the aggregate revenue and expenditure of the Consolidated Revenue Funds of the Commonwealth and States for each of the years 1955-56 to 1959-60. In these tables, the combined Commonwealth and State totals have been adjusted to exclude major duplications, but the separate Commonwealth and State figures are as shown in other divisions of this chapter. The items excluded from the total figures are:—payments made by the Commonwealth to the States and included in the State Consolidated Revenue Funds on account of tax reimbursements up to 1958-59, and Financial Assistance Grants in 1959-60, interest under the Financial Agreement, special grants, special financial assistance, coal strike emergency grants, price control reimbursements, grants to universities, cattle tick control, tuberculosis capital expenditure, National Welfare Fund payments, and estimated payments of pay-roll tax by the States to the Commonwealth. There are other relatively minor payments for which adjustments have not been made, and the adjusted figures are therefore still slightly overstated.

COMMONWEALTH AND STATES : REVENUE AND EXPENDITURE.

Year ended 30th June—	Revenue.			Expenditure.		
	Commonwealth.	States.	Total.	Commonwealth.	States.	Total.
	£'000.	£'000.	£m.	£'000.	£'000.	£m.
1956.. ..	1,138,358	526,011	1,466. 1	1,138,358	540,959	1,481. 0
1957.. ..	1,311,835	576,934	1,672. 4	1,311,835	583,875	1,679. 4
1958.. ..	1,323,771	605,183	1,690. 7	1,323,771	612,200	1,697. 7
1959.. ..	1,296,050	639,959	1,682. 9	1,296,050	647,276	1,690. 3
1960.. ..	1,438,286	699,510	1,857. 3	1,438,286	702,041	1,859. 8

(ii) *Loan Expenditure.* The aggregate gross loan expenditures of the Commonwealth and States on works and services for the years 1955-56 to 1959-60 are shown in the following table:—

COMMONWEALTH AND STATE GROSS LOAN EXPENDITURE: WORKS AND SERVICES.(a)
(£'000.)

Gross Loan Expenditure.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
Commonwealth(b)	44,003	44,068	45,174	86,190	59,650
State	177,511	173,776	173,693	188,814	203,235
Total	221,514	217,844	218,867	275,004	262,885

(a) Excludes expenditure on loan flotations, funding deficits, etc. (b) Includes expenditure on Defence, War (1939-45) and Repatriation Services. Excludes payments to the National Debt Sinking Fund from proceeds of the loan from the International Bank for Reconstruction and Development, payments to the Swiss Loan Trust account from proceeds of the Swiss Loan, and payments to the Canadian Loan Trust account from proceeds of the Canadian Loan.

2. *Taxation.*—The following table shows the combined Commonwealth and State taxation, and the amount per head of population, for the years 1955-56 to 1959-60. Taxation collections by the State Governments which are not paid into the Consolidated Revenue Funds are included.

COMMONWEALTH AND STATE TAXATION: TOTAL NET COLLECTIONS.(a)

Particulars.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
NET COLLECTIONS. (£'000.)					
Customs and Excise Duties	255,772	286,037	303,051	307,925	336,492
Sales Tax	110,001	125,752	137,777	143,617	164,185
Land Tax	5,969	11,827	15,407	15,424	17,220
Pay-roll Tax	45,543	48,675	48,552	49,619	55,162
Income Taxes	574,062	620,321	650,452	608,675	671,302
Probate and Succession Duties	33,508	37,089	39,477	40,486	47,744
Stamp Duties, n.e.i.	18,181	21,336	24,527	28,317	36,901
Motor Taxes	28,919	33,539	37,520	41,905	46,465
Liquor Taxes	6,617	7,220	8,095	8,483	8,623
Racing	7,430	7,495	7,870	7,540	8,262
Entertainments Tax	1,445	1,838	1,982	1,846	1,609
Licences, n.e.i., and other Taxes	14,334	12,142	14,877	17,291	16,804
Commonwealth	1,003,780	1,098,736	1,161,533	1,133,298	1,249,790
States	98,001	114,535	128,054	137,830	160,979
Total	1,101,781	1,213,271	1,289,587	1,271,128	1,410,769

PER HEAD OF POPULATION.
(£ s. d.)

Customs and Excise Duties	27 9 1	30 0 0	31 2 1	30 18 9	33 1 9
Sales Tax	11 16 2	13 3 9	14 2 8	14 8 7	16 2 11
Land Tax	0 12 10	1 4 10	1 11 7	1 11 0	1 13 10
Pay-roll Tax	4 17 9	5 2 1	4 19 8	4 19 9	5 8 6
Income Taxes	61 12 6	65 1 2	66 14 10	61 3 1	66 0 3
Probate and Succession Duties	3 11 11	3 17 9	4 1 0	4 1 4	4 13 11
Stamp Duties, n.e.i.	1 19 0	2 4 9	2 10 4	2 16 11	3 12 6
Motor Taxes	3 2 1	3 10 4	3 17 0	4 4 2	4 11 5
Liquor Taxes	0 14 2	0 15 2	0 16 7	0 17 0	0 17 0
Racing	0 15 11	0 15 9	0 16 2	0 15 2	0 16 3
Entertainments Tax	0 3 1	0 3 10	0 4 1	0 3 9	0 3 2
Licences, n.e.i., and other Taxes	1 11 0	1 5 6	1 10 6	1 14 10	1 13 1
Commonwealth	107 15 0	115 4 8	119 3 8	113 17 5	122 18 0
States	10 11 7	12 1 8	13 4 4	13 18 9	15 18 10
Total	118 5 6	127 4 11	132 6 6	127 14 4	138 14 7

(a) For separate details of Commonwealth and State taxation collections, see pages 811 and 841.

D. COMMONWEALTH AND STATE GOVERNMENT SECURITIES ON ISSUE.

NOTE.—The term “public debt” formerly used to describe the subject matter of this division has been replaced by the term “government securities on issue” for the following reasons:—

Government securities on issue, as set out in the tables in this division, may not be aggregated without adjustment to indicate what is sometimes described as the “public debt” or “net public debt” of the Commonwealth and State Governments.

There are forms of debt not evidenced by the issue of securities. Again, some of the securities included in the tables are held by the Governments themselves. For example, a State Government may hold temporarily, or even for long periods, securities issued by the Commonwealth Government. The Commonwealth Government itself, through such institutions as the National Debt Commission, or through the Trust Funds, holds large investments in securities issued, either directly by itself or on behalf of the States. In addition, some of the securities issued on behalf of the States and held by the Commonwealth Government represent the proceeds of oversea loans, securities for which were issued directly by the Commonwealth Government. From the point of view of the aggregate net debt of the Commonwealth and the States, it would thus involve duplication if the sum of the securities on issue were to be regarded as representing the “net public debt”.

No change has occurred in the content of the subject matter dealt with in this division, and the figures in the following sections are entirely comparable with those shown in previous issues of this Year Book.

§ 1. General.

Under the Financial Agreement between the Commonwealth and the States in 1927, the Commonwealth Government accepted responsibility for the securities of the State Governments then on issue, and was empowered to arrange for all future borrowings on behalf of the Commonwealth and the States and to issue Commonwealth securities for all money borrowed. The Commonwealth is reimbursed by the States for interest, exchange, etc., paid on their behalf, and the securities are redeemed from the National Debt Sinking Fund to which both the Commonwealth and State Governments make contributions.

In the statistical tables relating to Government securities, the units of currency for securities on issue and interest payable, except in § 3, para. 5, are:—Maturing in Australia—£ Australian; Maturing in London—£ Sterling; Maturing in New York—£ (converted from dollars at the rate of \$4.8665 to £1); Maturing in Canada—£ (converted from dollars at the rate of \$4.8665 to £1); Maturing in Switzerland—£ (converted from Swiss francs at the rate of 1,000 Swiss francs = £A.102 1s. 10d.).

The totals shown represent the total “face” or “book” value of the securities without adjustment on account of the difference in currency mentioned above.

In § 3, para. 5 only, details of the securities on issue on account of the Commonwealth and each State are given in Australian currency.

§ 2. The Financial Agreement between the Commonwealth and the States.

1. General.—Full details of the Financial Agreement between the Commonwealth and the States are given in earlier issues of the Official Year Book (*see* No. 37, pp. 685–690). In this issue, a summary of the main provisions only is given.

2. **Australian Loan Council.**—The Australian Loan Council was set up to co-ordinate the borrowings of the Commonwealth and the States. It consists of the Prime Minister of the Commonwealth, or another Minister nominated by him in writing, as Chairman, and the State Premiers, or Ministers nominated by them in writing. Each year, the Loan Council examines the loan programmes of the Commonwealth and the States and determines the total amount to be borrowed during the year. Borrowings by the Commonwealth for defence purposes are not subject to decisions of the Loan Council.

3. **Loan Raisings for the Commonwealth and States.**—Subject to the decisions of the Loan Council, the Commonwealth arranges for all borrowings for or on behalf of the Commonwealth or any State, and for all conversions, renewals, redemptions, and consolidations of the securities issued on behalf of the Commonwealth and of the States.

If the Loan Council unanimously decides, however, a State may borrow outside Australia in its own name, and may issue securities for the amount so borrowed. The Commonwealth then guarantees that the State will fulfil all its obligations to bond-holders in respect of the money so borrowed, and the money is deemed to be borrowed by the Commonwealth for and on behalf of the State.

Subject to any maximum limits decided upon by the Loan Council for interest, brokerage, discount and other charges, the Commonwealth or any State may—

- (i) borrow within its own territory, for any purpose, money from any authorities, bodies, funds or institutions (including Savings Banks) constituted or established under Commonwealth or State law or practice;
- (ii) borrow from the public by means of counter sales of securities; and
- (iii) use any available public moneys.

However, any securities issued for money so borrowed or used must be Commonwealth securities on terms approved by the Loan Council.

4. **Taking over of State Government Securities.**—The Commonwealth took over on 1st July, 1929—

- (a) securities issued by each State existing on 30th June, 1927; and
- (b) all other securities of each State existing on 1st July, 1929, for money borrowed by that State deemed by the Agreement to be money borrowed by the Commonwealth for and on behalf of the State,

and in respect of these securities assumed, as between the Commonwealth, and the States, the liabilities of the States to bond holders.

5. **Transferred Properties.**—In relation to State properties transferred to the Commonwealth under Section 85 of the Constitution, the States as from 1st July, 1929, were discharged from any liability in respect of principal, interest or redemption on so much of the securities bearing interest at 5 per cent. per annum, taken over by the Commonwealth as amounted to the agreed value of these properties, namely £10,924,323.

6. **Payment of Interest.**—For a period of 58 years from 1st July, 1927, the Commonwealth agreed to contribute the sum of £7,584,912 each year towards the interest payable on the State securities. The balance of the interest payable on the State securities is paid to the Commonwealth by the States.

7. *Sinking Fund.*—(i) *State Securities existing at 30th June, 1927.* A sinking fund at the rate of 7s. 6d. per annum for each £100 of the securities of the States existing on 30th June, 1927, and conversions thereof, was established under the terms of the Agreement. The Commonwealth contributes annually from revenue 2s. 6d. per £100 on the securities of the States existing at 30th June, 1927, and each State contributes annually 5s. per £100 on the securities of such State at 30th June, 1927. The payments of the Commonwealth and of all States except New South Wales will continue for a period of 58 years from 1st July, 1927, and those of New South Wales for a similar period from 1st July, 1928.

(ii) *New Borrowings.* On new borrowings after 1st July, 1927 (except those for redemptions or conversions, or funding a State deficit), a sinking fund at the rate of 10s. per £100 per annum was established, and the State and the Commonwealth contribute from revenue equal shares for a period of 53 years from the date of raising. (New South Wales did not commence sinking fund contributions in respect of new loans raised in the financial year 1927–28 until 1st July, 1928.)

(iii) *Loans raised to meet a Revenue Deficit.* In respect of any loan (except any of the loans referred to in para. (iv) below) raised by a State after 30th June, 1927, to meet a revenue deficit accruing after that date, no sinking fund contribution is made by the Commonwealth, but the State makes a sinking fund contribution at the rate of not less than 4 per cent. per annum of the loan for a period sufficient to provide for the redemption of the loan, the contributions being deemed to accumulate at the rate of $4\frac{1}{2}$ per cent. per annum compound interest.

(iv) *Loans raised to meet Revenue Deficits between 30th June, 1927, and 1st July, 1935.* Special contributions are payable in respect of loans raised by a State or by the Commonwealth on behalf of a State, on the security of Commonwealth Treasury Bills, to meet a revenue deficit which accrued after 30th June, 1927, and before 1st July, 1935. Details of these contributions are given in Official Year Book No. 37, pages 688 and 689.

(v) *National Debt Commission.* The sinking funds established are controlled by the National Debt Commission, which may arrange with any State to act as its agent in connexion with payments due to bond holders. Except where the conditions relating to sinking funds, redemption funds, and funds of a like nature held by a State on 30th June, 1929, precluded such transfer, all such funds were transferred to the National Debt Commission.

(vi) *Operation of Sinking Fund.* Sinking fund contributions made in respect of the securities of a State, and funds of that State transferred to the National Debt Commission, are not accumulated, but must be applied, whenever expedient, to the redemption and repurchase of loan securities. When such a loan security is repurchased or redeemed by the National Debt Commission, it is cancelled, and the State, in addition to sinking fund contributions otherwise payable, pays a further annual sinking fund contribution at the rate of $4\frac{1}{2}$ per cent. on the face value of the cancelled security for the balance of the period during which the original contribution is payable in respect of that debt.

(vii) *Oversea Securities on Issue.* Sinking fund contributions in respect of oversea securities shall be calculated at the mint par of exchange prevailing on 1st July, 1927.

8. *Borrowing by Semi-Governmental Authorities.*—It was realized from the inception of the Loan Council that, in the interests of co-ordinated borrowing, the Council should be advised of the borrowing of large amounts by semi-governmental authorities. In May, 1936, all resolutions passed by the Loan Council in connexion with semi-governmental borrowings were consolidated into one set of rules, which superseded all previous resolutions. This set of rules provides, *inter alia*, for the submission of annual loan programmes in respect of semi-governmental authorities proposing to raise £100,000 or more in a year, for the consideration of such programmes in conjunction with the loan programme of the Government concerned, and for the fixing of the terms of individual semi-governmental loans coming within the scope of the annual programme.

§ 3. Commonwealth and State Government Securities on Issue.

1. Government Securities on Issue, Annual Interest Payable and Average Rate of Interest at 30th June, 1960.—In the following table, details are given of the Commonwealth and State Government Securities on Issue, annual interest payable and average rate of interest at 30th June, 1960.

COMMONWEALTH AND STATE GOVERNMENT SECURITIES ON ISSUE
AND ANNUAL INTEREST PAYABLE AT 30th JUNE, 1960.

Particulars.	Maturing in—					Total.
	Australia.	London.	New York.	Canada.	Switzer-land.	
SECURITIES ON ISSUE.						
	£A.'000.	£Stg.'000.	£'000.(a)	£'000.(a)	£'000.(a)	£'000.(a)
<i>Commonwealth—</i>						
<i>War (1914-18)(b)—</i>						
Stock and Bonds	70,281	7,534	..	..	..	77,815
Other(c)	68	..	..	..	..	68
<i>Total War (1914-18)</i>	<i>70,349</i>	<i>7,534</i>	<i>..</i>	<i>..</i>	<i>..</i>	<i>77,883</i>
<i>War (1939-45)—</i>						
Stock and Bonds	540,601	5,655	..	..	..	546,256
Treasury Bills, Internal ..	222,690	..	..	..	..	222,690
Treasury Bills, Public ..	170,990	..	..	..	..	170,990
Other (d)	9,909	..	..	..	..	9,909
<i>Total War (1939-45)</i>	<i>944,190</i>	<i>5,655</i>	<i>..</i>	<i>..</i>	<i>..</i>	<i>949,845</i>
<i>Works and Other Purposes—</i>						
Stock and Bonds	323,215	62,631	15,985	2,722	18,376	422,929
Treasury Bills, Internal ..	10,810	..	..	..	..	10,810
Treasury Bills, Public ..	30,010	..	..	..	..	30,010
International Bank Dollar						
Loans .. ..	..	..	55,306	..	..	55,306
Serial Notes .. ..	..	..	6,549	..	..	6,549
<i>Total Works and</i>						
<i>Other Purposes ..</i>	<i>364,035</i>	<i>62,631</i>	<i>77,840</i>	<i>2,722</i>	<i>18,376</i>	<i>525,604</i>
<i>Total Commonwealth</i>	<i>1,378,574</i>	<i>75,820</i>	<i>77,840</i>	<i>2,722</i>	<i>18,376</i>	<i>1,533,332</i>
<i>States—</i>						
Stock and Bonds	2,211,360	262,864	33,194	..	..	2,507,418
Debentures	33,245	..	..	..	..	33,245
Balance of Securities of States						
taken over by Common-						
wealth and still represented						
by State Securities .. ..	..	4,241	..	..	..	4,241
<i>Total States ..</i>	<i>2,244,605</i>	<i>267,105</i>	<i>33,194</i>	<i>..</i>	<i>..</i>	<i>2,544,904</i>
<i>Grand Total Commonwealth and States ..</i>	<i>3,623,179</i>	<i>342,925</i>	<i>111,034</i>	<i>2,722</i>	<i>18,376</i>	<i>4,098,236</i>

(a) See § 1, p. 853. (b) Excludes War (1914-18) Debt due to United Kingdom Government (£79,724,000). Repayment of this debt and interest thereon (£3,919,774) was suspended in 1931. (c) War and Peace Savings Certificates and Stamps and War Gratuity Bonds. (d) Advance Loan Subscriptions, National Savings Bonds, War Savings and Savings Certificates, War Savings and National Savings Stamps.

COMMONWEALTH AND STATE GOVERNMENT SECURITIES ON ISSUE
AND ANNUAL INTEREST PAYABLE AT 30th JUNE, 1960—continued.

Particulars.	Maturing in—					Total
	Australia.	London.	New York.	Canada.	Switzerland.	

SECURITIES ON ISSUE PER HEAD OF POPULATION.

	£ s. d. (Aust.)	£ s. d. (Stg.)	£ s. d. (a)	£ s. d. (a)	£ s. d. (a)	£ s. d. (a)
<i>Commonwealth—</i>						
War (1914–18)(b) ..	6 16 10	0 14 8	..	..	..	7 11 6
War (1939–45) ..	91 16 10	0 11 0	..	..	..	92 7 10
Works and Other Purposes ..	35 8 2	6 1 10	7 11 5	0 5 4	1 15 9	51 2 6
<i>Total Commonwealth</i> ..	134 1 10	7 7 6	7 11 5	0 5 4	1 15 9	151 1 10
<i>Total States</i> ..	219 18 4	26 3 5	3 5 0	..	..	249 6 9
<i>Grand Total Commonwealth and States</i> ..	352 8 6	33 7 1	10 16 0	0 5 4	1 15 9	398 12 8

ANNUAL INTEREST PAYABLE.

	£A.'000.	£Stg.'000.	£'000.(a)	£'000.(a)	£'000.(a)	£'000.(a)
<i>Commonwealth—</i>						
War (1914–18)(b) ..	2,685	227	..	..	..	2,912
War (1939–45) ..	26,328	226	..	..	..	26,554
Works and Other Purposes ..	14,543	2,526	3,562	109	750	21,490
<i>Total Commonwealth</i> ..	43,556	2,979	3,562	109	750	50,956
<i>Total States</i> ..	93,253	9,833	1,435	..	..	104,521
<i>Grand Total Commonwealth and States</i> ..	136,809	12,812	4,997	109	750	155,477

ANNUAL INTEREST PAYABLE PER HEAD OF POPULATION.

	£ s. d. (Aust.)	£ s. d. (Stg.)	£ s. d. (a)	£ s. d. (a)	£ s. d. (a)	£ s. d. (a)
<i>Commonwealth—</i>						
War (1914–18)(b) ..	0 5 3	0 0 5	..	..	..	0 5 8
War (1939–45) ..	2 11 3	0 0 5	..	..	..	2 11 8
Works and Other Purposes ..	1 8 3	0 5 0	0 6 11	0 0 3	0 1 5	2 1 10
<i>Total Commonwealth</i> ..	4 4 9	0 5 10	0 6 11	0 0 3	0 1 5	4 19 2
<i>Total States</i> ..	9 2 9	0 19 3	0 2 10	..	..	10 4 10
<i>Grand Total Commonwealth and States</i> ..	13 6 2	1 4 11	0 9 9	0 0 3	0 1 5	15 2 6

AVERAGE RATE OF INTEREST PAYABLE (PER £100 PER ANNUM).

	£ s. d. (Aust.)	£ s. d. (Stg.)	£ s. d. (a)	£ s. d. (a)	£ s. d. (a)	£ s. d. (a)
<i>Commonwealth—</i>						
War (1914–18)(b) ..	3 16 4	3 0 5	..	..	..	3 14 10
War (1939–45) ..	2 15 10	4 0 0	..	..	..	2 16 0
Works and Other Purposes ..	4 0 0	4 0 8	4 11 6	4 0 0	4 1 8	4 1 10
<i>Total Commonwealth</i> ..	3 3 3	3 18 7	4 11 6	4 0 0	4 1 8	3 5 8
<i>Total States</i> ..	4 3 1	3 13 7	4 6 6	..	..	4 2 2
<i>Grand Total Commonwealth and States</i> ..	3 15 7	3 14 9	4 10 0	4 0 0	4 1 8	3 15 11

(a) See § 1, p. 853. (b) Excludes War (1914–18) Debt due to United Kingdom Government (£79,724,000). Repayment of this debt and interest thereon (£3,919,774) was suspended in 1931.

2. **Government Securities on Issue and Annual Interest Payable, 1956 to 1960.**—In the following table, details are given of the Government securities on issue and annual interest payable, including the average rate of interest, at 30th June, 1956 to 1960. A dissection of securities on issue for these years into securities maturing in Australia, London, New York, Canada and Switzerland may be found in the annual bulletin *Finance, Part I.—Public and Private Finance*.

**COMMONWEALTH AND STATE GOVERNMENT SECURITIES ON ISSUE
AND ANNUAL INTEREST PAYABLE AT 30th JUNE.**

Particulars.	1956.	1957.	1958.	1959.	1960.
SECURITIES ON ISSUE. (£'000.) (a)					
<i>Commonwealth—</i>					
War (1914–18)	129,880	120,140	104,674	97,333	77,883
War (1939–45)	1,405,072	1,339,818	1,196,213	1,049,252	949,845
Works and Other Purposes	391,615	425,473	433,989	502,695	525,604
<i>Total Commonwealth</i>	<i>1,926,567</i>	<i>1,885,431</i>	<i>1,734,876</i>	<i>1,649,280</i>	<i>1,553,332</i>
<i>States</i>	<i>1,962,027</i>	<i>2,106,477</i>	<i>2,247,932</i>	<i>2,391,621</i>	<i>2,544,904</i>
Grand Total Commonwealth and States	3,888,594	3,991,908	3,982,808	4,040,901	4,098,236

ANNUAL INTEREST PAYABLE.
(£'000.) (a)

<i>Commonwealth—</i>					
War (1914–18)	4,408	4,158	3,792	3,556	2,912
War (1939–45)	37,731	36,132	31,529	28,786	26,554
Works and Other Purposes	14,489	16,598	17,674	19,595	21,490
<i>Total Commonwealth</i>	<i>56,628</i>	<i>56,888</i>	<i>52,995</i>	<i>51,937</i>	<i>50,956</i>
<i>States</i>	<i>70,610</i>	<i>79,739</i>	<i>88,074</i>	<i>95,864</i>	<i>104,521</i>
Grand Total Commonwealth and States	127,238	136,627	141,069	147,801	155,477

AVERAGE RATE OF INTEREST PAYABLE (PER £100 PER ANNUM).
(£ s. d.) (a)

<i>Commonwealth—</i>					
War (1914–18)	3 8 0	3 9 3	3 12 6	3 13 1	3 14 10
War (1939–45)	2 13 9	2 14 0	2 12 9	2 14 11	2 16 0
Works and Other Purposes	3 14 0	3 18 0	4 1 7	3 18 1	4 1 10
<i>Total Commonwealth</i>	<i>2 18 10</i>	<i>3 0 4</i>	<i>3 1 2</i>	<i>3 3 1</i>	<i>3 5 8</i>
<i>States</i>	<i>3 12 0</i>	<i>3 15 9</i>	<i>3 18 4</i>	<i>4 0 2</i>	<i>4 2 2</i>
Grand Total Commonwealth and States	3 5 5	3 8 6	3 10 10	3 13 2	3 15 11

(a) See § 1, p. 853.

3. **Government Securities on Issue on Account of States and Annual Interest Payable at 30th June, 1960.**—In paragraphs 1 and 2, government securities on issue on account of the States are shown in total only. In the following tables, the total for each State and the amounts on issue per head of population at 30th June, 1960, the annual interest payable, and the average rate of interest payable, are shown according to the place of flotation.

**GOVERNMENT SECURITIES ON ISSUE ON ACCOUNT OF THE STATES
AND ANNUAL INTEREST PAYABLE AT 30th JUNE, 1960.**

State.	Maturing in Australia.	Maturing Overseas.			Grand Total.
		London.	New York.	Total Overseas.	
SECURITIES ON ISSUE.					
	£A.'000.	£Stg.'000.	£'000.(a)	£'000.(a)	£'000.(a)
New South Wales	754,536	111,474	14,190	125,664	880,200
Victoria	546,438	41,223	6,461	47,684	594,122
Queensland	272,257	44,583	5,584	50,167	322,424
South Australia	300,385	31,994	3,469	35,463	335,848
Western Australia	214,048	30,490	2,249	32,739	246,787
Tasmania	156,941	7,341	1,241	8,582	165,523
Total	2,244,605	267,105	33,194	300,299	2,544,904

SECURITIES ON ISSUE PER HEAD OF POPULATION.					
	£ s. d. (Aust.)	£ s. d. (Stg.)	£ s. d. (a)	£ s. d. (a)	£ s. d. (a)
New South Wales	197 1 10	29 2 4	3 14 2	32 16 6	229 18 4
Victoria	188 19 4	14 5 1	2 4 8	16 9 9	205 9 1
Queensland	186 1 3	30 9 4	3 16 4	34 5 8	220 6 11
South Australia	317 15 8	33 16 11	3 13 5	37 10 4	355 6 0
Western Australia	292 19 8	41 14 8	3 1 7	44 16 3	337 15 11
Tasmania	451 14 2	21 2 7	3 11 5	24 14 0	476 8 2
Total	219 18 4	26 3 5	3 5 0	29 8 5	249 6 9

ANNUAL INTEREST PAYABLE.					
	£A.'000.	£Stg.'000.	£'000.(a)	£'000.(a)	£'000.(a)
New South Wales	31,204	4,269	592	4,861	36,065
Victoria	23,055	1,689	291	1,980	25,035
Queensland	10,950	1,582	230	1,812	12,762
South Australia	12,612	1,066	159	1,225	13,837
Western Australia	8,894	960	103	1,063	9,957
Tasmania	6,538	267	60	327	6,865
Total	93,253	9,833	1,435	11,268	104,521

AVERAGE RATE OF INTEREST PAYABLE (PER £100 PER ANNUM).					
	£ s. d. (Aust.)	£ s. d. (Stg.)	£ s. d. (a)	£ s. d. (a)	£ s. d. (a)
New South Wales	4 2 9	3 16 7	4 3 5	3 17 4	4 1 11
Victoria	4 4 5	4 1 11	4 10 2	4 3 1	4 4 3
Queensland	4 0 5	3 11 0	4 2 4	3 12 3	3 19 2
South Australia	4 4 0	3 6 7	4 11 10	3 9 1	4 2 5
Western Australia	4 3 1	3 3 0	4 11 6	3 5 0	4 0 8
Tasmania	4 3 4	3 12 8	4 16 10	3 16 2	4 2 11
Total	4 3 1	3 13 7	4 6 6	3 15 1	4 2 2

(a) See § 1, p. 853.

4. Government Securities on Issue on Account of the States, 1956 to 1960.—In the following table, the Government securities on issue on account of each State and the amounts on issue per head of population at 30th June, 1956 to 1960 are shown.

GOVERNMENT SECURITIES ON ISSUE.

30th June—	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
SECURITIES ON ISSUE. (£'000.) (a)							
1956	698,136	445,713	252,799	254,423	188,733	122,223	1,962,027
1957	742,696	481,819	269,320	274,913	205,145	132,584	2,106,477
1958	787,462	518,213	285,947	294,821	218,428	143,061	2,247,932
1959	832,367	555,012	303,470	314,828	232,119	153,825	2,391,621
1960	880,200	594,122	322,424	335,848	246,787	165,523	2,544,904

SECURITIES ON ISSUE PER HEAD OF POPULATION.

(£ s. d.) (a)																							
1956	196	9	4	171	1	11	184	8	8	299	16	10	278	12	4	382	7	5	209	5	10
1957	205	0	0	180	4	5	192	16	5	314	17	3	296	10	1	404	7	0	219	14	11
1958	213	9	0	189	0	8	201	14	10	328	15	4	309	14	4	426	10	4	229	14	6
1959	221	11	9	197	3	11	210	11	11	341	17	11	322	15	3	449	7	4	239	6	0
1960	229	18	4	205	9	1	220	6	11	355	6	0	337	15	11	476	8	2	249	6	9

(a) See § 1, p. 853.

In some States, certain public utilities such as tramways, water supply and sewerage, harbour services, etc., are controlled by boards or trusts, which, in addition to receiving advances from the central Government, raise loans by borrowing on their own behalf, while in other States these services are controlled by the central Government. Comparison of the Government securities on issue on account of the States is therefore difficult, but on page 864 figures showing the aggregate securities on issue of the States, including those of local and semi-governmental authorities, are shown for the years 1954–55 to 1958–59.

5. Government Securities on Issue and Interest Payable in Australian Currency.—In the foregoing tables relating to Commonwealth and State securities on issue, the securities maturing in London are expressed in sterling, those maturing in New York and Canada are expressed in pounds converted from dollars at the rate of \$4.8665 to £1, and those maturing in Switzerland are expressed in pounds converted from Swiss francs at the rate of 1,000 Swiss francs = £A.102 ls. 10d. This method of showing the securities on issue does not indicate the amount that the Australian Government would have to find to redeem the securities at current rates of exchange. In the following tables, the securities and the interest payable are shown in terms of Australian currency throughout. Securities maturing in London, New York, Canada and Switzerland have been converted to Australian currency at the selling rate of exchange on 30th June, 1960.

COMMONWEALTH AND STATE GOVERNMENT SECURITIES ON ISSUE
AND INTEREST PAYABLE AT 30th JUNE, 1960: AUSTRALIAN CURRENCY.
(£A.'000.)

Particulars.	Maturing in—					Total.
	Australia.	London. (a)	New York. (b)	Canada. (c)	Switzer- land. (d)	
SECURITIES ON ISSUE.						
Commonwealth—						
War (1914-18)	70,349	9,455	..	..	..	79,804
War (1939-45)	944,190	7,097	..	..	..	951,287
Works and Other Purposes ..	364,035	78,602	169,572	6,056	18,713	636,978
Total Commonwealth ..	1,378,574	95,154	169,572	6,056	18,713	1,668,069
States—						
New South Wales	754,536	139,901	30,912	..	..	925,349
Victoria	546,438	51,734	14,075	..	..	612,247
Queensland	272,257	55,952	12,165	..	..	340,374
South Australia	300,385	40,152	7,558	..	..	348,095
Western Australia	214,048	38,265	4,900	..	..	257,213
Tasmania	156,941	9,213	2,702	..	..	168,856
Total States	2,244,605	335,217	72,312	..	..	2,652,134
Commonwealth and States—						
Short-term	434,500	..	..	..	..	434,500
Other	3,188,679	430,371	241,884	6,056	18,713	3,885,703
Grand Total Common- wealth and States ..	3,623,179	430,371	241,884	6,056	18,713	4,320,203

For footnotes see next page.

COMMONWEALTH AND STATE GOVERNMENT SECURITIES ON ISSUE AND INTEREST PAYABLE AT 30th JUNE, 1960: AUSTRALIAN CURRENCY—*continued*.
(£A.'000.)

Particulars.	Maturing in—					Total.
	Australia.	London. (a)	New York. (b)	Canada. (c)	Switzer- land. (d)	
ANNUAL INTEREST PAYABLE.						
Commonwealth—						
War (1914-18)(e)	2,685	286	..	..	..	2,971
War (1939-45)	26,328	284	..	..	..	26,612
Works and Other Purposes ..	14,543	3,170	7,760	242	764	26,479
Total Commonwealth	43,556	3,740	7,760	242	764	56,062
States—						
New South Wales	31,204	5,357	1,289	..	..	37,850
Victoria	23,055	2,120	635	..	..	25,810
Queensland	10,950	1,986	501	..	..	13,437
South Australia	12,612	1,337	347	..	..	14,296
Western Australia	8,894	1,205	224	..	..	10,323
Tasmania	6,538	335	131	..	..	7,004
Total States	93,253	12,340	3,127	..	..	108,720
Grand Total Common- wealth and States	136,809	16,080	10,887	242	764	164,782

(a) Converted at rate of £Stg.100 = £A.125 10s.

(b) Converted at rate of \$2.2339 = £A.1

(c) Converted at rate of \$2.1875 = £A.1.

(d) Converted at rate of 9,619 francs = £A.1.

(e) See

footnote (b), page 856.

6. *Government Securities on Issue at each Rate of Interest.*—The following table shows particulars of the securities on issue for Commonwealth and State purposes at 30th June, 1960, at each rate of interest:—

COMMONWEALTH AND STATE GOVERNMENT SECURITIES ON ISSUE
AT 30th JUNE, 1960: AMOUNTS AT EACH RATE OF INTEREST.

Rate of Interest.	Maturing in—								Total.
	Australia.		London.		New York.		Other Overseas.		
	Com-mon-wealth.	States.	Com-mon-wealth. (a)	States.	Com-mon-wealth.	States.	Com-mon-wealth.	Com-mon-wealth.		States.
Per cent.	£A.'000.	£A.'000.	£Stg.'000	£Stg.'000	£'000.(b)	£'000.(b)	£'000.(b)	£'000.(b)	£'000.(b)
6.0 ..	..	..	..	16,000	..	..	..	..	16,000
5.5 ..	..	..	21,481	32,360	5,137	..	..	26,618	32,360
5.25 ..	..	..	..	..	842	4,295	..	842	4,295
5.0 ..	303,627	516,959	..	1	1,955	6,806	..	305,582	523,766
4.75 ..	71,377	122,903	..	..	34,883	4,213	..	106,260	127,116
4.625 ..	..	..	..	..	10,775	..	..	10,775	..
4.5 ..	140,833	616,885	..	11,790	237	4,432 (c)	6,125	147,195	633,107
4.2625 ..	45	..	..	..	..	..	..	45	..
4.25 ..	..	2,652	..	..	17,034	..	..	17,034	2,652
4.0 ..	50,906	311,731	5,655	21,999	..	382 (d)	8,848	65,409	334,112
3.875 ..	43	703	..	..	..	..	..	43	703
3.75 ..	9,052	69,906	..	..	2,872	1,447 (c)	6,125	18,049	71,353
3.625 ..	..	107	..	..	..	..	..	..	107
3.5 ..	..	5,100	5,652	25,145	1,042	6,717	..	6,694	36,962
3.4875 ..	..	21	..	..	..	..	..	..	2
3.375 ..	..	..	..	..	3,063	4,902	..	3,063	4,902
3.25 ..	202,692	62,597	33,262	55,804	..	..	..	235,954	118,401
3.2391 ..	5,432	..	..	..	..	..	..	5,432	..
3.125 ..	129,940	411,429	..	..	..	..	..	129,940	411,429
3.1 ..	..	3,506	..	..	..	..	..	..	3,506
3.0 ..	..	31,058	9,770	69,769	..	..	..	9,770	100,827
2.8347 ..	2,773	..	..	..	..	..	..	2,773	..
2.75 ..	..	..	..	15,794	..	..	..	..	15,794
2.7125 ..	..	375	..	..	..	..	..	..	375
2.5 ..	..	2	..	18,441	..	..	..	..	18,443
2.325 ..	..	1,504	..	..	..	..	..	..	1,504
1.5 ..	..	3,184	..	..	..	..	..	..	3,184
1.0 ..	434,500	33,245	..	..	..	..	..	434,500	33,245
Special Bonds ..	25,359	50,757	..	..	..	..	..	25,359	50,757
Miscellaneous(e) ..	1,995	..	..	2	..	..	..	1,995	2
Total ..	1,378,574	2,244,605	75,820	267,105	77,840	33,194	21,098	1,553,332	2,544,904

(a) Excludes War (1914–18) Debt due to United Kingdom, £79,724,000 (rate of interest, 4.91667 per cent.). (b) See § 1, p. 853. (c) Securities maturing in Switzerland, £6,125,000.

(d) Securities maturing in Switzerland, £6,126,000; securities maturing in Canada, £2,722,000.

(e) Consists of overdue debt, War (1914–18) and (1939–45) Savings Stamps and National Savings Stamps, etc.

7. **Dates of Maturity.**—(i) *Commonwealth.* In the following table, the Government securities on issue on account of the Commonwealth at 30th June, 1960, are classified according to the earliest and the latest years of maturity.

**GOVERNMENT SECURITIES ON ISSUE AT 30th JUNE, 1960(a): CLASSIFIED
ACCORDING TO EARLIEST AND LATEST YEARS OF MATURITY.**

Year of Maturity.	Earliest Year.					Latest Year.				
	Maturing in—				Total.	Maturing in—				Total.
	Aus- tralia.	Lon- don.	New York.	Other Overseas.		Aus- tralia.	Lon- don.	New York.	Other Overseas.	
	£A.'000.	£Stg. '000.	£'000 <i>b</i>	£'000.(<i>b</i>)	£'000.(<i>b</i>)	£A.'000.	£Stg. '000.	£'000 <i>b</i>	£'000.(<i>b</i>)	£'000.(<i>b</i>)
Before 30th June, 1960 ..	205,390	16,106	4,104	..	225,600	..	..	..	..	..
1960–61(c) ..	496,765	5,655	..	..	502,420	539,757	16,106	..	..	555,863
1961–62 ..	79,759	5,652	..	..	85,411	141,216	..	3,063	..	144,279
1962–63 ..	80,717	..	..	..	80,717	71,651	..	..	..	71,651
1963–64 ..	..	..	..	..	..	55,773	5,655	..	..	61,428
1964–65 ..	19,908	137	..	(<i>d</i>) 6,125	26,170	65,076	..	..	..	65,076
1965–66 ..	9,659	17,019	..	(<i>d</i>) 6,126	32,814	18,735	..	..	..	18,735
1966–67 ..	55,980	..	..	..	55,980	55,980	5,652	1,041	..	62,673
1967–68 ..	58,017	..	..	..	58,017	58,017	..	..	..	58,017
1968–69 ..	69,735	..	..	..	69,735	69,735	..	(<i>d</i>) 6,125	..	75,860
1969–70 ..	6,609	..	2,872	(<i>d</i>) 6,125	15,606	6,609	17,019	2,872	(<i>d</i>) 6,126	32,626
1970–71 ..	10,206	6,951	237	(<i>e</i>) 2,722	20,116	10,206	..	237	(<i>e</i>) 2,722	13,165
1971–72 ..	..	..	1,121	..	1,121	..	..	1,121	..	1,121
1972–73 and later	250,148	24,300	7,651	..	282,099	250,148	31,388	7,651	(<i>d</i>) 6,125	295,312
Special Bonds(<i>f</i>)	25,359	..	..	..	25,359	25,359	..	..	..	25,359
Miscellaneous(<i>g</i>)	10,312	..	h 61,855	..	72,167	10,312	..	h 61,855	..	72,167
Total ..	1,378,574	75,820	77,840	21,098	1,553,332	1,378,574	75,820	77,840	21,098	1,553,332

(a) See note (a) to previous table. (b) See § 1, p. 853. (c) Includes short-term debt.
 (d) Securities maturing in Switzerland. (e) Securities maturing in Canada. (f) See § 4 following
 (g) Consists of advance loan subscriptions, overdue securities, securities redeemable in half-yearly instalments, War Savings and Savings Certificates, War Savings Stamps, National Savings Stamps and Peace Savings Certificates. (h) International Bank Dollar Loans £55,306,000 being repaid in half-yearly instalments from 1st September, 1955, to 1st September, 1975; 1st June, 1957, to 1st December, 1972; 1st March, 1957, to 1st March, 1969; 15th March, 1958, to 15th March, 1970; 15th July, 1959, to 15th January, 1972, and from 1st June, 1964, to 1st December, 1966; and Serial Notes £6,549,000 to be repaid in half-yearly instalments from 31st December, 1960, to 31st December, 1964.

(ii) *States.* Particulars of Government securities on issue on account of the States at 30th June, 1960, have been classified in the following table according to the earliest and the latest years of maturity.

**GOVERNMENT SECURITIES ON ISSUE ON ACCOUNT OF THE STATES AT
30th JUNE, 1960: CLASSIFIED ACCORDING TO EARLIEST AND LATEST
YEARS OF MATURITY.**

Year of Maturity.	Earliest Year.				Latest Year.			
	Maturing in—			Total.	Maturing in—			Total.
	Aus- tralia.	London.	New York.		Aus- tralia.	London.	New York.	
	£A.'000.	£Stg. '000.	£'000.(a)	£'000.(a)	£A.'000.	£Stg. '000.	£'000.(a)	£'000.(a)
Before 30th June, 1960 ..	87,122	31,209	11,619	129,950	..	..	..	..
1960-61	279,419	11,790	..	291,209	236,225	18,398	..	254,623
1961-62	280,449	23,304	..	303,753	133,233	..	4,902	138,135
1962-63	348,168	12,655	..	360,823	244,221	11,790	..	256,011
1963-64	4,076	9,590	..	13,666	106,497	..	..	106,497
1964-65	82,536	12,642	..	95,178	257,647	12,655	..	270,302
1965-66	62,972	64,124	..	127,096	166,919	9,590	..	176,509
1966-67	129,660	..	..	129,660	129,660	23,304	6,717	159,681
1967-68	167,991	15,795	..	183,786	167,991	25,434	..	193,425
1968-69	205,786	..	..	205,786	205,786	..	..	205,786
1969-70	49,306	18,441	1,447	69,194	49,306	40,530	1,447	91,283
1970-71	44,683	..	4,432	49,115	44,683	10,971	4,432	60,086
1971-72	2,177	12,175	2,751	17,103	2,177	15,795	2,751	20,723
1972-73	75,761	10,000	4,213	89,974	75,761	10,000	4,213	89,974
1973-74	5,520	..	..	5,520	5,520	12,175	..	17,695
1974-75	53,683	16,000	..	69,683	53,683	31,083	..	84,766
1975-76	89,675	26,646	..	116,321	89,675	..	..	89,675
1976-77	6,001	..	..	6,001	6,001	16,000	..	22,001
1977-78	7,088	..	..	7,088	7,088	4,286	..	11,374
1978-79	8,359	..	4,056	12,415	8,359	22,360	4,056	34,775
1979-80	106,736	..	4,294	111,030	106,736	..	4,294	111,030
1980-81	6,150	..	..	6,150	6,150	..	..	6,150
1981-82 and later	67,260	..	..	67,260	67,260	..	..	67,260
Special Bonds (f)	50,757	..	..	50,757	50,757	..	..	50,757
Miscellaneous(c)	23,270	2,734	382	26,386	23,270	2,734	382	26,386
Total	2,244,605	267,105	33,194	2,544,904	2,244,605	267,105	33,194	2,544,904

(a) See § 1, p. 853. (b) See § 4 following. (c) Consists of overdue, indefinite and inter-minable securities, securities due at Treasurer's option, and half-yearly drawings.

8. Short-term Securities on Issue.—(i) *Amount.* Particulars of the short-term securities (Treasury Bills and Debentures) of the Commonwealth and States in London and in Australia at intervals from 30th June, 1956, to 30th June, 1960, are shown in the following table. These securities are included in the Government securities on issue as shown elsewhere.

COMMONWEALTH AND STATE SHORT-TERM SECURITIES ON ISSUE.(a)

Date.	Maturing in Australia. (£A.'000.)				Maturing in London. (£Stg.'000.)		
	Commonwealth.		States.	Total.	Common- wealth.	States.	Total.
	Treasury Bills.	Seasonal Securities.					
30th June, 1956 ..	165,000	..	..	165,000	..	26,068	26,068
„ „ 1957 ..	150,000	..	..	150,000	..	..	..
„ „ 1958 ..	140,000	..	..	140,000	..	..	..
30th September, 1958	195,000	..	3,000	198,000	..	..	..
31st December, 1958	282,000	..	5,000	287,000	..	..	..
31st March, 1959 ..	239,000	..	4,250	243,250	..	..	..
30th June, 1959 ..	171,000	..	..	171,000	..	..	..
30th September, 1959	239,000	..	..	239,000	..	..	..
31st December, 1959	299,000	23,498	3,000	325,498	..	..	..
31st March, 1960 ..	255,000	43,595	2,000	300,595	..	..	..
30th June, 1960 ..	201,000	..	..	201,000	..	..	..

(a) Excludes Overdrafts and Internal Treasury Bills.

(ii) *Interest Rates.* (a) *London.* The rates of interest payable on Treasury Bills and Debentures in London during the following periods were: 1938-39—minimum rate, 2 per cent., maximum rate, 2½ per cent.; 1949-50 to 1950-51—minimum rate, 2 per cent., maximum rate, 2½ per cent. On 8th November, 1951, the rates were increased to—minimum rate, 2½ per cent., maximum rate, 2¾ per cent.

(b) *Australia.* The Treasury Bill rates in Australia were as follows:—1¼ per cent. from 1st January, 1935; 1½ per cent. from 1st May, 1940; 1½ per cent. from 1st May 1943; 1 per cent. from 1st March, 1945; ¾ per cent. from 1st May, 1949; 1 per cent. from 1st August, 1952.

(c) *Seasonal Securities.* In November, 1959, the Commonwealth Government issued a new form of short-term Commonwealth security called Seasonal Treasury Notes and Seasonal Inscribed Stock. The 1959-60 issues of seasonal securities, which were readily cashable, transferable and interchangeable at any time, were redeemable at par on maturity at the end of three months, and all such securities were redeemed and cancelled before 30th June, 1960. Seasonal securities were issued in multiples of £1,000 over the minimum subscription of £5,000 at a price of £99 5s. 0d. per cent., and yielded a return of approximately 3 per cent. if held for three months. Such increases in value were taxable, but carried the right of rebate of two shillings in the pound as with Commonwealth loan interest.

9. *Government Securities on Issue on Account of the States, Municipal and Semi-governmental Authority Securities on Issue.*—For the reasons indicated on page 860, direct comparisons of the securities on issue on account of the several States should be made with caution. The table following shows, for 1954-55 to 1958-59, particulars of the securities on issue on account of the States and the securities on issue by municipal and semi-governmental authorities in each State.

**GOVERNMENT SECURITIES ON ISSUE ON ACCOUNT OF THE STATES,
MUNICIPAL AND SEMI-GOVERNMENTAL AUTHORITY SECURITIES ON ISSUE.**

State.		State.	Municipal. (a)	Semi-Gov- ernmental. (a)	Total.
SECURITIES ON ISSUE. (£'000.)(b) 1958-59.					
New South Wales	.. .. .	832,367	68,500	247,574	1,148,441
Victoria	.. .. .	555,012	37,305	391,029	983,346
Queensland	.. .. .	303,470	81,327	68,906	453,703
South Australia	.. .. .	314,828	4,633	28,642	348,103
Western Australia	.. .. .	232,119	9,719	18,048	259,886
Tasmania	.. .. .	153,825	11,123	14,340	179,288
Total	{ 1958-59	2,391,621	212,607	768,539	3,372,767
	{ 1957-58	2,247,932	195,638	701,474	3,145,044
	{ 1956-57	2,106,477	183,471	630,146	2,920,094
	{ 1955-56	1,962,027	170,839	570,068	2,702,934
	{ 1954-55	1,825,727	158,712	505,710	2,490,149

SECURITIES ON ISSUE PER HEAD OF POPULATION.

SECURITIES ON ISSUE PER HEAD OF POPULATION.							
(£.) (b)							
1958-59.							
New South Wales	221.6	18.2	65.9	305.7
Victoria	197.2	13.2	138.9	349.3
Queensland	210.6	56.4	47.8	314.8
South Australia	341.9	5.0	31.1	378.0
Western Australia	322.7	13.5	25.1	361.3
Tasmania	449.3	32.5	41.9	523.7
Total	{	1958-59	..	239.3	21.3	76.9	337.5
		1957-58	..	229.7	20.0	71.8	321.5
		1956-57	..	219.7	19.1	65.7	304.5
		1955-56	..	209.3	18.3	60.7	288.3
		1954-55	..	199.5	17.4	55.2	272.1

(a) Excludes amounts due to the Central Government. Includes bank overdrafts. (b) See § 1, p. 853.

The loans of £92,000,000, £10,000,000 and £55,000,000 raised in June, 1958, 1959 and 1960, respectively, were for the purpose of fulfilling an undertaking given by the Commonwealth that the States would have access to loan funds for their works programmes up to the approved Loan Council borrowing programmes. These programmes totalled £200,000,000 in 1957-58, £210,000,000 in 1958-59 and £220,000,000 in 1959-60. Subscriptions to these special loans for the three years covered came from the Loan Consolidation and Investment Reserve Trust Account, except for £9,600,000 in 1957-58 from the National Debt Commission from investment of Australian currency proceeds from an International Bank Loan.

Finance for the approved Loan Council programmes from 1957-58 to 1959-60 was provided from the following sources:—

LOAN COUNCIL PROGRAMME(a): SOURCE OF FINANCE.

£.			
Source.	1957-58.	1958-59.	1959-60.
Public Loans, domestic raisings, etc.	105,900,000	177,300,000	148,300,000
Oversea Loans and Special Commonwealth Assistance	94,100,000	32,700,000	71,700,000
Total	200,000,000	210,000,000	220,000,000

(a) Excludes amounts provided for War Service Land Settlement, 1957-58, £8,262,000 and for Emergency Wheat Storage, 1958-59, £6,547,000; 1959-60, £6,937,000 and for rehabilitation of the Mount Isa-Townsville-Collinsvale railway line, £20,000,000.

In addition to the new loans raised as shown in the foregoing tables and the redemption and conversion loans shown in the following section, there were other miscellaneous loan operations during 1959-60, namely:—Savings Certificates and War Savings Certificates (Five and Seven Years' Series), a decrease of £2,428,000; War Savings and Savings Stamps, a decrease of £1,000; National Savings Bonds and Stamps, a decrease of £1,000; and "Over the Counter Sales" (small amounts borrowed by the States by virtue of certain statutory rights), £5,326,000. Advance loan subscriptions in hand decreased from £1,663,000 at the end of 1958-59 to £1,558,000 at the end of 1959-60.

(ii) *London.* The following table gives details of cash loans raised in London in October, 1958, and in February, 1960:—

COMMONWEALTH NEW LOANS RAISED IN LONDON.

Month of Raising.	Amount of Loan.	Rate of Interest per annum.	Price of Issue per £100 stg.	Year of Maturity.	Allocation of Proceeds.	
					Commonwealth.	States.
	£Stg.'000.	%	£Stg.		£Stg.'000.	£Stg.'000.
1958-59— October . .	15,000	5½	98	1978	2,560	12,440
1959-60— February . .	12,000	5½	99	1980	12,000	..

(iii) *New York.* A cash loan was raised in New York in June, 1956. This was the first since May, 1928, except for loans raised from the International Bank for Reconstruction and Development (see para. 4. below). The following table gives details of the loans raised during the period 1957-58 to 1959-60.

§ 4. Commonwealth Loan Raisings.

1. General.—Under the Financial Agreement between the Commonwealth and the States, the Commonwealth is responsible for raising all loan moneys required either by the Commonwealth or by the State Governments. Details of loan transactions given in this section relate, therefore, to all loans raised for the Commonwealth and the States.

2. New Loans Raised, 1957-58 to 1959-60.—(i) *Australia.* The following table shows details of new loans raised in Australia by the Commonwealth during the three years 1957-58 to 1959-60.

COMMONWEALTH NEW LOANS(a) RAISED IN AUSTRALIA.

Month of Raising.	Amount Invited.	Amount Sub- scribed.	Rate of In- terest per annum.	Year of Maturity.	Price of Issue per £100.	Allocation of Proceeds.		
						Commonwealth.		States.
						War (1939- 45) etc.	Other Pur- poses.	
	£'000.	£'000.	%		£	£'000.	£'000.	£'000.
1957-58—								
August (Loan No. 105) ..	30,000	{ 9,539 15,637 6,252	{ 4 5 5	{ 1959 1965 1976	{ 99½ 100 100	{	28	31,400
November (Loan No. 107) ..	30,000	{ 14,468 9,909 8,183	{ 4 5 5	{ 1960 1967 1973	{ 99 100 100	{	10	32,550
April (Loan No. 109) ..	35,000	{ 10,897 5,370 23,073	{ 4 4½ 5	{ 1961 1967 1973	{ 98½ 99 100	{	9	39,241
June (Loan No. 111) (b) ..	92,000	{ 31,000 27,000 34,000	{ 4 4½ 5	{ 1961 1967 1973	{ 98½ 99 100	{ 8,262	31,605	52,133
1958-59—								
October (Loan No. 112) ..	30,000	{ 13,078 4,748 18,971	{ 4 4½ 5	{ 1960 1967 1974	{ 99½ 99½ 100	{	1	36,796
February (Loan No. 114) ..	25,000	{ 35,945 3,996 20,252	{ 4 4½ 5	{ 1961 1967 1974	{ 99½ 99½ 100	{	1	60,192
May (Loan No. 115) ..	35,000	{ 14,139 3,309 33,103	{ 4 4½ 5	{ 1962 1968 1979	{ 99½ 99½ 100	{	21,499	29,052
June (Loan No. 117)(b) ..	10,000	{ 10,000 ..	{ 5 ..	{ 1979 ..	{ 100 ..	{ 6,547 ..	3,453	..
October-June (Special Bonds)c	..	27,142	4-5	1966	100	..	5,904	21,238
1959-60—								
September (Loan No. 118) ..	50,000	{ 12,993 6,698 38,878	{ 4 4½ 5	{ 1962 1968 1979	{ 100 99½ 100	{	12	58,557
February (Loan No. 120) ..	45,000	{ 5,989 16,799 17,528	{ 4 4½ 5	{ 1963 1969 1981	{ 99½ 99½ 100	{	25	40,291
May (Loan No. 121) ..	25,000	{ 1,794 10,563 9,258	{ 4 4½ 5	{ 1963 1969 1981	{ 99½ 99½ 100	{	9	21,606
June (Loan No. 123) (b) ..	55,000	{ 6,000 9,000 40,000	{ 4 4½ 5	{ 1963 1969 1981	{ 99½ 99½ 100	{ 4,418	20,331	30,251
July-June (Special Bonds) (c)	..	26,177	4-5	{ 1966 1967	{ 100 ..	1,408	4,077	20,692

(a) Includes loans raised for redemption of Treasury Bills, but excludes conversion loans, loans for redemption of debt maturing in London, short-term debt and certain miscellaneous debt (see below).
 (b) Special issue. For details see following paragraph. (c) Special Bonds open for continuous subscription, redeemable at prices commencing at par and increasing to a premium of £3 per cent. if held until maturity in 1966-67. Interest increases from 4 per cent. to 5 per cent. over period of currency.

COMMONWEALTH NEW LOANS RAISED IN NEW YORK.

Month of Raising.	Amount of Loan.	Rate of Interest per annum.	Price of Issue per \$100.	Year of Maturity.	Allocation of Proceeds.	
					Commonwealth.	States.
	\$'000.	%	\$		\$'000.	\$'000.
1957-58—						
April ..	25,000	4½	99	1973	4,145	20,855
1958-59—						
November ..	25,000	5	97½	1978	4,263	20,737
July-June ..	11,960	4½	100	a 1960-65	(b) 11,960	..
July-June ..	1,560	4½	100	a 1960-65	(b) 1,560	..
July-June ..	3,000	4½	100	a 1960-64	(c) 3,000	..
1959-60—						
September ..	25,000	5½	97	1979	25,000	..
April ..	25,000	5½	97½	1980	4,100	20,900
July-June ..	4,160	4½	100	a 1960-65	(b) 4,160	..
July-June ..	6,240	4½	100	a 1960-65	(b) 6,240	..

(a) Repayable in half-yearly instalments.

(b) Proceeds used for Qantas Empire Airways Loan.

(c) Proceeds used for Australian National Airlines Loan.

3. Conversion and Redemption Loans, 1957-58 to 1959-60.—(i) *Australia*. Particulars of conversion loans raised in Australia during the three years 1957-58 to 1959-60 are given in the following table:—

COMMONWEALTH CONVERSION AND REDEMPTION LOANS RAISED IN AUSTRALIA.

Month of Raising.	Old Loan.		New Loan.				Increase in Annual Liability for Interest.
	Amount.	Rate of Interest per annum.	Amount.	Rate of Interest per annum.	Price of Issue per £100.	Year of Maturity.	
	£A.'000.	%	£A.'000.	%	£		£A.'000.
1957-58—							
August ..	150,527	3½	{ 98,650	4	99½	1959	516
			{ 9,592	5	100	1965	
			{ 34,701	5	100	1976	
November ..	75,293	3½	{ 21,457	4	99	1960	119
			{ 26,233	5	100	1967	
			{ 7,913	5	100	1973	
April ..	173,371	4	{ 108,637	4	98½	1961	-754
			{ 10,657	4½	99	1967	
			{ 26,577	5	100	1973	
1958-59—							
October ..	218,192	3½	{ 54,894	4	99½	1960	506
			{ 24,543	4½	99½	1967	
			{ 75,647	5	100	1974	
			{ a 11,332	4-5	100	1966	-288
May ..	108,189	4	{ 51,070	4	99½	1962	
			{ 21,563	4½	99½	1968	
			{ 16,395	5	100	1979	691
1959-60—							
September ..	194,750	3½	{ (a) 3,805	4-5	100	1966	
		3½	{ 35,487	4	100	1962	-567
			{ 35,531	4½	99½	1968	
			{ 69,072	5	100	1979	
			{ (a) 8,605	4-5	100	1966	-567
May ..	100,848	4	{ 36,418	4	99½	1963	
			{ 15,030	4½	99½	1969	
			{ 24,105	5	100	1981	-567
			{ (a) 2,270	4-5	100	1967	

(a) Special Bonds.

NOTE.—Minus sign (—) indicates reduction in liability for interest.

(ii) *London*. The following table shows particulars of loans raised in London during the years 1957-58 and 1958-59, for the purpose of redeeming and converting London loans.

**COMMONWEALTH LOANS RAISED FOR THE CONVERSION AND
REDEMPTION OF LOANS MATURING IN LONDON.**

Month of Raising.	Old Loan.		New Loan.					Increase in Annual Liability for Inter- est and Exchange. (a)
	Amount.	Rate of Interest per annum.	Amount raised in—		Rate of Interest per annum.	Price of Issue per £100.	Year of Maturity.	
			Australia.	London.				
			£Stg. '000.	%					£A.'000.	£Stg. '000.	%	£
1957-58— February ..	16,000	3	..	16,000	6	99½	1976	602
1958-59— March ..	20,675	3½	..	20,000	5½	99	{ 1973 1979 }	502

(a) No account has been taken of the cost of issuing the conversion loans at a discount. Exchange calculated at £A. 125.375 = £Stg. 100.

(iii) *New York.* During 1946-47, four loans totalling \$128,000,000 were raised in New York to redeem loans which became due for redemption or which the Commonwealth had the option of redeeming. No further loans were raised in New York for this purpose until December, 1954. The most recent loan raised in New York for this purpose was in March, 1957, and amounted to \$17,114,000, at 5 per cent. interest, issued at par, maturing in 1972. No loans were raised for this purpose in 1957-58, 1958-59 or 1959-60.

4. International Bank for Reconstruction and Development Loans.—To provide dollar funds for the purchase of certain types of capital equipment and plant which were indispensable to the furtherance of development in Australia and which could be obtained only in the United States of America or Canada, the Commonwealth Government arranged six loans from the International Bank for Reconstruction and Development between August, 1950, and December, 1956, amounting to \$317,730,000, repayable over periods of from 10 to 25 years, at rates of interest of from 4½ to 4¾ per cent. The proceeds of the latest of these loans were finally drawn in March, 1959.

The capital equipment and plant purchased from the proceeds of these loans are made available to Commonwealth and State Government departments and agencies and private firms and individuals for use in the development of Australian resources. The goods are imported and distributed through normal channels and payment made through the Australian banking system.

5. Swiss Loan.—To foster industrial development in Australia and to stimulate trade relations between the two countries, the Commonwealth Government arranged for the issue in Switzerland in November, 1953, February, 1955, and March, 1960, of three public loans each of 60,000,000 Swiss francs. The loans were underwritten by a Swiss banking group headed by the Swiss Bank Corporation, the Credit Suisse and the Union Bank of Switzerland. Certain Swiss taxes connected with the issue and servicing of the loan were paid on an agreed basis by the Australian Government.

The first loan was for a period of 15 years with an option on the part of the Australian Government to repay the loan in full or in part after 12 years. The rate of interest was 4 per cent. and the issue price £99. Bondholders have the option of requiring payment either in Australian pounds or in the foreign currency equivalent of Australian pounds.

The second Swiss loan was for a period of 15 years with an option to redeem after 10 years. The rate of interest was 3¾ per cent. and the issue price £99 10s. Bonds and interest are payable only in Swiss francs. The third Swiss loan was for a period of fifteen years with an option to redeem after 10 years. The rate of interest was 4½ per cent. and the issue price £99. Payments of interest and repayments of principal are to be made only in Swiss francs.

The loans were fully subscribed, and Swiss franc proceeds, after deducting borrowing expenses, were sold by the Commonwealth Government to the Commonwealth Bank in return for an equivalent amount of Australian currency.

6. Canadian Loan.—In October, 1955, the Commonwealth Government arranged for the issue in Canada of a public loan of 15,000,000 Canadian dollars raised to assist Australia's development programme. The loan was underwritten by Wood, Gundy & Company Limited of Toronto, Canada.

The loan was for a period of 15 years with an option on the part of the Australian Government to repay the loan in full or in part at any time prior to 1st November, 1970. The rate of interest was 4 per cent. payable half-yearly and the issue price \$98.50. Bonds and interest are payable in Canadian dollars.

The loan was fully subscribed, and the net Canadian dollar proceeds were sold to the Commonwealth Bank for Australian currency.

7. Summary of Loan Transactions, 1955-56 to 1959-60.—The following table contains a summary of loan transactions on behalf of the Commonwealth and State Governments during the five years 1955-56 to 1959-60.

COMMONWEALTH LOAN TRANSACTIONS: SUMMARY.

Details.	Year ended 30th June—				
	1956.	1957.	1958.	1959.	1960.
New Loans—					
New Loans (a) raised in—					
Australia £A.'000.	193,919	196,854	195,238	184,683	201,678
London £Stg.'000.	..	..	..	15,000	12,000
New York (b) \$'000.	50,355	23,536	65,091	58,351	60,400
Switzerland Francs '000.	..	..	..	..	60,000
Canada \$'000.	15,000	..	..	..	..
Miscellaneous Debt in Australia (c) £A.'000.	8,269	—3,214	1,229	3,230	5,224
Net Increase in Short Term Debt—					
Australia—Public £A.'000.	5,000	—15,000	—10,000	31,000	30,000
Internal £A.'000.	—8,200	20,200	12,500	5,300	—36,100
London £Stg.'000.	—220	—26,068	..	..	..
Loans raised for Conversion or Redemption of existing Securities maturing in—					
Australia £A.'000.	120,496	228,260	344,417	259,250	226,519
London—					
Raised in Australia £A.'000.	..	32,708	..	..	..
London £Stg.'000.	..	6,951	16,000	20,000	..
New York \$'000.	18,028	17,114	..	..	..

(a) Includes loans raised for redemption of Treasury Bills. (b) Includes amounts drawn of \$100,000,000, \$50,000,000, \$54,000,000, \$54,500,000, \$9,230,000 and \$50,000,000, loans from International Bank for Reconstruction and Development. (c) "Over the Counter Sales", Instalment Stock, National Savings Bonds, War Savings and Savings Certificates and net increase in debt on account of advance loan subscriptions and, until the discontinuance of sales, War Savings and Savings Stamps and National Savings Stamps.

NOTE.—Minus sign (—) denotes a decrease in debt.

8. Commonwealth and State Government Securities Maturing in Australia, Classified by Holder.—The following table shows details of Commonwealth and State Securities maturing in Australia classified according to holder as at the 30th June, 1959 and 1960:—

COMMONWEALTH AND STATE SECURITIES ON ISSUE MATURING IN AUSTRALIA, CLASSIFIED BY HOLDER.(a)

(Source: Reserve Bank Statistical Bulletin.)

Holder.	At 30th June—			
	1959.		1960.	
	Amount £ million.	Proportion of Total.	Amount £ million.	Proportion of Total.
Reserve Bank	432	12.0	470	13.0
Trading Banks	312	8.7	275	7.6
Savings Banks	744	20.7	799	22.1
Life Assurance Offices (b)	218	6.1	226	6.2
Fire, Marine and General Insurance Offices	77	2.1	81	2.2
Pension and Provident Funds	89	2.5	87	2.4
Stabilization Funds	11	0.3	11	0.3
Other Government Financial Institutions .. ..	..	..	15	0.4
Commonwealth and State Governments	736	20.5	687	19.0
Local and Semi-Government Bodies	61	1.7	65	1.8
Trustee Offices	98	2.7	96	2.6
Money Market Dealers	49	1.4	80	2.2
Companies not elsewhere included	97	2.7	98	2.7
All Other	666	18.6	633	17.5
Total	3,590	100.0	3,623	100.0

(a) Total Stock inscribed, bonds in circulation, amounts paid up on outstanding applications, in transit claims and advance applications, Commonwealth Treasury Bills, debentures, and Savings Certificates. (b) Holdings by State Government insurance offices are excluded from "Life Assurance" and included in "Fire, Marine, etc."

§ 5. National Debt Sinking Fund.

1. **Securities on Issue on behalf of the Commonwealth.**—Particulars relating to the creation of sinking funds are included in issues of the Official Year Book prior to No. 23.

The old sinking funds were merged in the National Debt Sinking Fund on 11th August, 1923. Particulars of receipts and expenditure of the Commonwealth Account for the years 1955–56 to 1959–60 were as follows:—

NATIONAL DEBT SINKING FUND: COMMONWEALTH ACCOUNT.
(£'000.)

Item.	1955–56.	1956–57.	1957–58.	1958–59.	1959–60.
Receipts—					
From Consolidated Revenue	15,412	15,292	14,301	14,376	19,533
Loans and Advances Repaid	2,212	2,986	2,881	3,213	3,398
War Service Homes Money Repaid ..	5,865	5,660	6,566	7,560	9,589
Half Net Profit Commonwealth Bank ..	3,112	3,918	4,961	5,749	2,808
Reparation Monies .. ..	..	200	63	20	43
Interest on Investments	(a) 7,997	(a) 9,169	(a) 9,413	(a) 9,015	(a) 8,303
Loan (International Bank for Reconstruction and Development) Act	19,369	5,367	14,564	7,492	..
Other Contributions	2	2	1	..	..
Total Receipts	53,969	42,594	52,750	47,425	43,674
Expenditure—					
Securities Repurchased and Redeemed in—					
Australia	17,955	32,891	60,001	64,799	59,126
London	298	88	318	189	218
New York	(b) 1,525	(b) 3,031	(b) 5,172	(b) 6,029	(b) 7,969
Total Expenditure	19,778	36,010	65,491	71,017	67,313
Balance at 30th June	236,501	243,085	230,344	206,752	183,113
Face Value of Securities Repurchased and Redeemed in—					
Australia	19,149	34,718	61,017	65,421	59,556
London	240	85	305	185	220
New York	(b) 699	(b) 1,397	(b) 2,387	(b) 2,783	(b) 3,681
Total Face Value	20,088	36,200	63,709	68,389	63,457

(a) Includes interest received under National Debt Sinking Fund (Special Payment) Act 1951, £3,683,000 in 1955–56, £4,205,000 in 1956–57, £3,936,000 in 1957–58, £3,382,000 in 1958–59 and £3,030,000 in 1959–60. (b) Includes instalment repayments of loans from International Bank for Reconstruction and Development: 1955–56, net cost £1,407,000; face value, £645,000; 1956–57, net cost, £2,668,000; face value, £1,221,000; 1957–58, net cost £4,733,000; face value £2,173,000; 1958–59, net cost £5,688,000; face value £2,618,000; and 1959–60, net cost £7,235,000; face value £3,326,000.

2. **Securities on Issue on behalf of States.**—(i) *States*, 1959–60. A sinking fund for the redemption of the Securities on Issue on behalf of States was established under the Financial Agreement. Details of contributions to be made to this fund are given on page 855. Particulars of the transactions of the National Debt Sinking Fund (States' Account) for each State during the year 1959–60 are shown below.

NATIONAL DEBT SINKING FUND: STATES' ACCOUNT, 1959-60.
(£'000.)

Item.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Receipts—							
Contributions under Financial Agreement—							
Commonwealth	2,074	1,367	744	791	578	388	5,942
States	6,983	5,248	2,621	3,180	2,098	1,150	21,280
Interest from States on cancelled Securities	5	3	1	2	2	1	14
Special Contributions by States	86	53	9	77	1	1	227
Interest on Investments, etc.	-2	-2	..	-1	2	3	..
Total Receipts	9,146	6,669	3,375	4,049	2,681	1,543	27,463
Expenditure—							
Securities Repurchased and Redeemed in—							
Australia	8,332	6,162	3,077	3,172	2,387	1,440	24,570
London	177	35	40	389	132	24	797
New York	798	414	294	601	162	73	2,342
Total Expenditure	9,307	6,611	3,411	4,162	2,681	1,537	27,709
Balance at 30th June, 1960	192	186	105	72	85	81	721
Face Values of Securities Repurchased and Redeemed in—							
Australia	8,348	6,172	(a) 3,079	(b) 3,177	2,387	1,454	24,617
London	178	30	35	353	140	25	761
New York	378	195	140	278	77	35	1,103
Total Face Value	8,904	6,397	3,254	3,808	2,604	1,514	26,481

(a) Includes discounts on conversion loans £21,000.
£55,000.

(b) Includes discounts on conversion loans

(ii) *All States, 1955-56 to 1959-60.* The following table is a summary of the transactions of the National Debt Sinking Fund (States' Account) for the years 1955-56 to 1959-60:—

NATIONAL DEBT SINKING FUND: STATES' ACCOUNT.

(£'000.)

Item.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
<i>Receipts—</i>					
Contributions under Financial Agreement—					
Commonwealth	4,310	4,640	5,065	5,386	5,942
States	15,416	16,317	17,758	19,161	21,280
Interest from States on cancelled Securities	26	9	11	8	14
Special Contributions by States	90	90	193	239	227
Interest on Investments, etc.	32	23	36	47	..
<i>Total Receipts</i>	<i>19,874</i>	<i>21,079</i>	<i>23,063</i>	<i>24,841</i>	<i>27,463</i>
<i>Expenditure—</i>					
Securities Repurchased and Redeemed in—					
Australia	18,656	20,312	16,567	21,359	24,570
London	329	857	6,043	1,799	797
New York	773	879	1,011	1,024	2,342
<i>Total Expenditure</i>	<i>19,758</i>	<i>22,048</i>	<i>23,621</i>	<i>24,182</i>	<i>27,709</i>
<i>Balance at 30th June</i>	<i>1,835</i>	<i>866</i>	<i>308</i>	<i>967</i>	<i>721</i>
<i>Face Value of Securities Repurchased and Redeemed in—</i>					
Australia	19,235	20,431	16,102	21,435	24,617
London	275	809	4,866	1,330	761
New York	356	415	476	481	1,103
<i>Total Face Value</i>	<i>19,866</i>	<i>21,655</i>	<i>21,444</i>	<i>23,246</i>	<i>26,481</i>

E. TAXES ON INCOME.

1. *General.*—A description of the development of income taxes in Australia appeared in Official Year Book No. 35, page 926. Since July, 1942, the Commonwealth, under the uniform tax arrangement, has been the only authority imposing taxes on income. Taxes on income are assessed and imposed under the Income Tax and Social Services Contribution Assessment Act 1936-1959 and the Income Tax and Social Services Contribution Act 1959. The latter Act is an annual measure and its primary purpose is to declare the rates of tax and contribution payable for the financial year. The rates for the financial year are levied, in the case of individuals, on the income of that year and, in the case of companies, on the income of the preceding year. Thus tax for the financial year 1960-61 is levied on the income of individuals in 1960-61 and on the income of companies in 1959-60.

2. *Present Taxes.*—For individuals, a single tax known as the Income Tax and Social Services Contribution is levied. All companies are liable for primary income tax and, in addition, private companies are subject to tax on undistributed income.

3. **Assessable Income.**—Income taxes in Australia are levied, primarily, on all income derived from Australian sources by any person, rather than on income derived from all sources by Australian residents. Thus a non-resident is taxed on income derived in Australia, while a resident is, in general, not taxed on income other than dividends derived from overseas, if the income is taxed in the country in which it is derived.

Certain types of Australian income are exempt from tax in Australia, the more important being (i) pensions, child endowment and other payments under the Social Services Act 1947–1958 and the Tuberculosis Act 1948, (ii) income from gold-mining and uranium mining, (iii) twenty per cent. of certain mining profits, (iv) dividends paid out of exempt mining profits, and (v) income received from a scholarship, bursary or other education allowance.

No amount is included in assessable income on account of a house occupied by its owner. Profits derived from the sale of property are not assessable income if such property was not purchased with a view to resale at a profit.

Expenses incurred in earning income, certain subscriptions to business associations, and trade union dues, are allowable deductions. Losses incurred in previous years may be carried forward as a deduction.

Because of uncongenial climatic conditions, isolation, and high cost of living, taxpayers living in certain areas are allowed an additional deduction. Two zones have been prescribed, and the allowances are:—Zone A, £270 plus an amount equal to one half of the total deductions allowable to the taxpayer for the maintenance of dependants; and Zone B, £45 plus an amount equal to one twelfth of the deductions allowable to the taxpayer for the maintenance of dependants. A deduction equal to the deduction allowed to residents of Zone A is also allowed to members of the defence forces serving for more than one half of the year of income at declared localities outside Australia. The boundaries of Zones A and B are as defined in the Second Schedule, Income Tax and Social Services Assessment Act 1936–1960.

Income Tax and Social Services Contribution is levied on the taxable income remaining after making these deductions and the concessional deductions to which reference is made in the following paragraph.

4. **Concessional Deductions.**—Concessional allowances for dependants, medical expenses, life assurance and superannuation contributions, etc., are made by way of a deduction from income. The maximum deduction allowed for each dependant, for a parent or parent-in-law, or for a housekeeper employed by the taxpayer, for the financial year 1960–61, is shown in the following table.

CONCESSIONAL DEDUCTIONS FOR DEPENDANTS, ETC.(a)

(£.)

Dependant, etc. (Resident).	Maximum Deduction.
Spouse	143
Daughter-housekeeper (b)	143
Housekeeper (b) having care of taxpayer's children under 16 years of age	143
Parent or Parent-in-law	143
One child under 16 years of age	91
Other children under 16 years of age	65
Invalid relative(c)	91
Child 16 to 21 years receiving full-time education (d)	91

(a) These deductions are allowed only if the dependant, parent or parent-in-law is a resident of Australia. If the dependant is maintained for part only of the year, a partial deduction is allowed. (b) Of a widower or widow. (c) Child, step-child, brother or sister over 16 years of age. The amount of the deduction is reduced by any invalid pension received. (d) The amount of the deduction is reduced by the value of any assistance provided by the Commonwealth or a State.

When the dependant or person maintained derives separate income, the amount of the concessional deduction allowable is reduced as follows:—

In the case of a spouse or daughter-housekeeper, by £2 for every £1 by which the separate net income exceeds £65; for each parent or parent-in-law maintained, by £1 for each £1 of separate income; and for each dependent child or invalid relative, by £2 for every £1 by which the separate net income exceeds £52.

For the 1960–61 financial year, medical expenses paid by a taxpayer who is a resident, in respect of himself or dependants, including children under 21 years of age, up to £150 for each person, are allowed as a concessional deduction. Medical expenses include payments made to a legally qualified medical practitioner, nurse or chemist, or to a hospital, in respect of an illness or operation, payments for dental services not exceeding £30 for any one person, payment for therapeutic treatment and eye tests, expenditure on medical or surgical appliances, artificial limbs or eyes, hearing aids and spectacles, and the remuneration of an attendant of a person who is blind or confined to bed or invalid chair.

Other concessional deductions allowed to resident taxpayers include, (i) payments of life, etc., insurance premiums and contributions to superannuation funds and friendly societies, not exceeding an aggregate of £400, (ii) payments to medical or hospital benefits funds, (iii) funeral expenses of a dependant not exceeding £30 and (iv) expenditure incurred for the full-time education of children or dependants who are less than 21 years of age (maximum £100 per child or dependant).

In addition to concessional deductions, all taxpayers (residents and non-residents) are allowed a deduction from income of rates and taxes on land which are annually assessed, gifts to charitable, benevolent or patriotic funds and one-third of amounts paid as calls to certain mining, forestry and oil-prospecting companies. Resident taxpayers only are allowed a deduction from income of the full amount paid as calls and as application and allotment moneys to certain companies engaged in the search for oil in Australia and New Guinea.

5. Effective Exemption from Tax.—For the financial years 1950–51 to 1960–61, resident taxpayers without dependants were exempt from Income Tax and Social Services Contribution if their income did not exceed £104. The effect of the deductions for dependants was to exempt taxpayers up to the incomes shown hereunder.

RESIDENT TAXPAYERS: EFFECTIVE EXEMPTIONS FROM TAX.
(£.)

Taxpayer with—				Income Tax and Social Services Contribution— Financial Years 1950–51 to 1952–53.	Income Tax and Social Services Contribution— Financial Years 1953–54 to 1956–57.	Income Tax and Social Services Contribution— Financial Years 1957–58 to 1960–61.
No dependants	..	..	..	104	104	104
Wife ..	..	..	..	208	234	247
Wife and one child	..	..	..	286	312	338
„ „ two children	..	..	..	338	364	403
„ „ three children	..	..	..	390	416	468
„ „ four children	..	..	..	442	468	533

For the 1960–61 financial year, an aged person (i.e., a man who has attained the age of 65 years or a woman who has attained the age of 60 years) is exempt from Income Tax and Social Services Contribution if his net income (i.e., gross income less expenses of earning that income) does not exceed £429. A married couple both of whom qualify by age for the concession, are exempt from tax if their combined net incomes do not exceed £858.

6. Rates of Income Tax and Social Services Contribution on Individuals.—The following table shows the rates of income tax and social services contribution for the financial years 1953–54 to 1960–61.

**INCOME TAX AND SOCIAL SERVICES CONTRIBUTION—INDIVIDUALS: RATES
OF INCOME TAX AND SOCIAL SERVICES CONTRIBUTION—1953-54 TO 1960-61.**

Total Taxable Income.		1953-54.		1954-55 to 1960-61.(a)	
Column 1.	Column 2.	Tax and Contribution on Amount in Column 1.		Tax and Contribution on Amount in Column 1.	
Exceeding—	Not Exceeding—				
£	£	£	s. d.	£	s. d.
Nil	100	Nil		Nil	
100	150	0	8 4	0	8 4
150	200	1	5 0	1	0 10
200	250	3	2 6	2	10 0
250	300	5	16 8	4	15 10
300	400	9	7 6	7	18 4
400	500	18	10 10	16	5 0
500	600	30	4 2	27	1 8
600	700	43	19 2	39	11 8
700	800	59	15 10	53	15 0
800	900	77	5 10	69	11 8
900	1,000	96	9 2	87	1 8
1,000	1,200	117	5 10	106	5 0
1,200	1,400	163	19 2	149	11 8
1,400	1,600	217	5 10	198	15 0
1,600	1,800	276	9 2	252	18 4
1,800	2,000	341	9 2	312	1 8
2,000	2,400	412	5 10	376	5 0
2,400	2,800	567	5 10	517	18 4
2,800	3,200	733	19 2	671	5 0
3,200	3,600	912	5 10	836	5 0
3,600	4,000	1,102	5 10	1,011	5 0
4,000	4,400	1,303	19 2	1,196	5 0
4,400	5,000	1,517	5 10	1,391	5 0
5,000	6,000	1,857	5 10	1,701	5 0
6,000	8,000	2,457	5 10	2,251	5 0
8,000	10,000	3,715	12 6	3,409	11 8
10,000	16,000	5,032	5 10	4,617	18 4
16,000	upwards	9,157	5 10	8,417	18 4

(a) For the 1959-60 financial year, provision was made for a rebate to reduce by 5 per cent. the income tax and social services contribution otherwise payable. This rebate was abolished for 1960-61 financial year.

For primary producers, the rate of Income Tax and Social Services Contribution for the current year is determined by the average of the taxable incomes for the five years up to and including the current year. A taxpayer may elect not to have these averaging provisions applied to his assessment, but the election, once made, is irrevocable. The application of the averaging provisions is limited to that part of the taxable income which does not exceed £4,000, and when the taxable income exceeds £4,000, the balance is taxed at the ordinary rates applicable to that part. When the taxable income is less than £4,000, the rate of tax for averaging purposes is limited to the rate on a taxable income of £4,000.

Commencing with 1953-54, the taxable income, including any abnormal receipts, of actors, artists, composers and inventors, is taxed at the rate appropriate to the normal taxable income plus one-third of the abnormal receipts.

Interest on Commonwealth Loans issued prior to 1st January, 1940, is subject to the condition that it shall not be taxed at rates higher than those for 1930-31. Interest on Commonwealth Loans issued after 1st January, 1940, and interest on certain State semi-governmental loans issued free of State income tax are subject to a rebate of 2s. for each £1 included in the taxable income.

The minimum amount of Income Tax and Social Services Contribution payable is 10s. and the amounts payable and rebates are calculated to the nearest shilling.

7. **The Income Tax (International Agreements) Act 1953.**—This Act provided for relief from double taxation of incomes flowing between Australia and the United States of America. It also provided similar relief in respect of the United Kingdom, which had been covered by the Income Tax Assessment Act since 1947.

8. **Taxes on Specified Incomes.**—The following table shows the Income Tax and Social Services Contribution payable by taxpayers, with various incomes and numbers of dependants, on income derived in each year from 1953–54 to 1960–61:—

COMMONWEALTH TAXES ON INCOME.

(£.)

Income.	Income Tax and Social Services Contribution.				
	1953–54 Financial Year.	1954–55 to 1956–57 Financial Years.	1957–58 and 1958–59 Financial Years.	1959–60 Financial Year.(a)	1960–61 Financial Year.

INCOME FROM PERSONAL EXERTION.—TAXPAYER WITH NO DEPENDANTS.

150	..	..	..	1.25	1.05	1.05	1.00	1.05
200	..	..	..	3.10	2.50	2.50	2.40	2.50
250	..	..	..	5.85	4.80	4.80	4.55	4.80
300	..	..	..	9.35	7.90	7.90	7.50	7.90
350	..	..	..	13.95	12.10	12.10	11.50	12.10
400	..	..	..	18.55	16.25	16.25	15.45	16.25
500	..	..	..	30.20	27.10	27.10	25.75	27.10
600	..	..	..	43.95	39.60	39.60	37.60	39.60
800	..	..	..	77.30	69.60	69.60	66.10	69.60
1,000	..	..	..	117.30	106.25	106.25	100.95	106.25
1,500	..	..	..	246.85	225.85	225.85	214.55	225.85
2,000	..	..	..	412.30	376.25	376.25	357.45	376.25
3,000	..	..	..	823.10	753.75	753.75	716.05	753.75
5,000	..	..	..	1,857.30	1,701.25	1,701.25	1,616.20	1,701.25

INCOME FROM PERSONAL EXERTION.—TAXPAYER WITH DEPENDENT WIFE.

150	..	..	..	..	..	..	..	..
200	..	..	..	..	..	..	..	..
250	..	..	..	0.75	0.65	0.50	0.50	0.50
300	..	..	..	2.00	1.60	1.25	1.20	1.25
350	..	..	..	4.20	3.60	2.80	2.65	2.80
400	..	..	..	7.25	6.05	5.25	5.00	5.25
500	..	..	..	15.80	13.75	12.65	12.00	12.65
600	..	..	..	26.70	23.85	22.40	21.30	22.40
800	..	..	..	55.05	49.50	47.65	45.25	47.65
1,000	..	..	..	90.70	81.85	79.55	75.55	79.55
1,500	..	..	..	209.30	191.35	188.20	178.80	188.20
2,000	..	..	..	366.25	334.55	330.35	313.85	330.35
3,000	..	..	..	765.15	700.10	694.75	660.00	694.75
5,000	..	..	..	1,783.60	1,634.10	1,627.35	1,546.00	1,627.35

(a) Provision was made for a rebate to reduce by 5 per cent. the amount of income tax and social services contribution otherwise payable.

COMMONWEALTH TAXES ON INCOME—*continued.*
(£.)

Income.	Income Tax and Social Services Contribution.				
	1953-54 Financial Year.	1954-55 to 1956-57 Financial Years.	1957-58 and 1958-59 Financial Years.	1959-60 Financial Year.(a)	1960-61 Financial Year.
INCOME FROM PERSONAL EXERTION.—TAXPAYER WITH DEPENDENT WIFE AND ONE CHILD.					
150 .. .. .	..	..	..	..	..
200 .. .. .	..	..	..	..	..
250 .. .. .	..	..	..	..	..
300 .. .. .	..	..	..	..	..
350	1.10	0.95	0.60	0.55	0.60
400	2.80	2.25	1.50	1.45	1.50
500	8.80	7.40	5.80	5.50	5.80
600	17.80	15.60	13.40	12.75	13.40
800	42.85	38.60	35.35	33.60	35.35
1,000	75.90	68.30	64.20	61.00	64.20
1,500	188.50	172.20	165.80	157.50	165.80
2,000	338.85	309.70	302.00	286.90	302.00
3,000	730.60	668.20	658.20	625.30	658.20
5,000	1,739.40	1,593.80	1,580.35	1,501.35	1,580.35
INCOME FROM PERSONAL EXERTION.—TAXPAYER WITH DEPENDENT WIFE AND TWO CHILDREN.					
150 .. .. .	..	..	..	..	..
200 .. .. .	..	..	..	..	..
250 .. .. .	..	..	..	..	..
300 .. .. .	..	..	..	..	..
350 .. .. .	..	..	..	..	..
400	1.10	0.90	..	..	..
500	5.30	4.35	2.55	2.40	2.55
600	13.05	11.25	8.00	7.60	8.00
800	35.70	32.10	27.20	25.85	27.20
1,000	66.80	60.10	53.90	51.20	53.90
1,500	174.60	159.40	149.85	142.35	149.85
2,000	321.95	294.35	282.80	268.65	282.80
3,000	708.95	648.25	633.30	601.65	633.30
5,000	1,709.95	1,566.90	1,546.75	1,469.40	1,546.75
INCOME FROM PROPERTY.—TAXPAYER WITH NO DEPENDANTS.					
150	1.25	1.05	1.05	1.00	1.05
200	3.10	2.50	2.50	2.40	2.50
250	5.85	4.80	4.80	4.55	4.80
300	9.35	7.90	7.90	7.50	7.90
350	13.95	12.10	12.10	11.50	12.10
400	18.55	16.25	16.25	15.45	16.25
500	30.20	27.10	27.10	25.75	27.10
600	43.95	39.60	39.60	37.60	39.60
800	77.30	69.60	69.60	66.10	69.60
1,000	117.30	106.25	106.25	100.95	106.25
1,500	246.85	225.85	225.85	214.55	225.85
2,000	412.30	376.25	376.25	357.45	376.25
3,000	823.10	753.75	753.75	716.05	753.75
5,000	1,857.30	1,701.25	1,701.25	1,616.20	1,701.25

(a) Provision was made for a rebate to reduce by 5 per cent. the amount of income tax and social services contribution otherwise payable.

9. *Pay-as-you-earn.*—(i) *Salary and Wage Earners.* Salary and wage earners are subject to instalment deductions for payment of tax at current rates out of weekly (or fortnightly) earnings. Employers are required to deduct tax and contribution from each payment of wages or salary to an employee at the appropriate rate, in accordance with a prescribed instalment scale. This scale shows the amount to be deducted according to the income and number of dependants of the employee.

Under the group scheme of deduction, which covers most employers of more than ten persons, the amount deducted is remitted to the Taxation Department, and after 30th June each year each employee is given a group certificate by his employer showing the amount of deductions made during the year. This certificate is forwarded to the Taxation Department with the employee's return of income for the year. If the tax assessed on the basis of this return is less than the amount shown on the group certificate, a refund is forwarded to the employee with his assessment. If the tax assessed is greater than the amount shown on the group certificate, the employee is required to pay the balance.

Under the stamp scheme used by small employers, a stamp deduction sheet in two parts is used. Each four weeks, the employer purchases stamps (also in two parts) for the amount of the deductions made each pay day and sticks one part on each half of the sheet. At the end of the year, the employer gives the employee one half of the sheet and sends the other half to the Taxation Department. The employee's half is then used in the same way as a group certificate.

(ii) *Taxpayers with Income other than Salary and Wages.* These taxpayers pay provisional tax in respect of income other than salary and wages. Collection of tax and contribution for the current year are made at the same time as collection and assessment for the previous year are adjusted. The notice of assessment shows an amount of provisional tax and contribution for the current year. This provisional amount is an approximation to the tax and contribution which will be payable after the return of income for the current year has been lodged. It is ascertained by assuming that the income of the current year will be the same as that for the previous year (for which a return has already been lodged), but the rates for the current year are applied to the income and not the rates for the year in which it was derived. The assessment notice shows the provisional tax and contribution paid in the previous year as a credit against the tax and contribution assessed on the basis of the return for that year. On receipt of his assessment, the taxpayer may elect to substitute his own estimate of income for the current year and pay tax on the basis of this estimate. To protect the revenue, a penalty is imposed if the taxpayer elects to pay provisional tax on an estimate of income more than 20 per cent. lower than the income of the previous year and he underestimates his income by more than 20 per cent.

An employee with income of £100 or more from sources other than salaries or wages is required to pay provisional tax in respect of that income.

10. *Lodgment of Returns and Assessment of Tax.*—All persons with assessable income in excess of £104 are required to lodge returns by 31st July each year (31st August for business incomes). The Income Tax and Social Services Contribution payable is assessed, and assessment notices showing the amounts payable are issued, during the year following the year of income (in most cases from September to June following the lodgment of the return). The approximate amount payable, however, has already been collected during the income year—from employees by deductions from wages and from non-employees by a provisional tax. The amount shown on the assessment notice is therefore adjusted against the amount already paid and any difference either collected or refunded.

11. *Company Income Taxes.*—(i) *General.* For taxation purposes, companies are divided into two main groups—public and private. A private company is defined as a company in which all the issued shares are held by not more than twenty persons or which is capable of being controlled by not more than seven persons, and which is not a company in which the public is substantially interested or a subsidiary of a public company. All other companies are regarded as public companies. Both public and private companies pay primary Income Tax and Social Services Contribution assessed on a taxable income ascertained on the same principles as for individuals.

Dividends received are assessable income, but resident companies receive a rebate at the average rate on the amount of dividends included in the taxable income. This rebate is not allowed to non-resident companies.

(ii) *Rates of Tax.* The rates of Primary Tax, in the case of public companies, and Primary and Additional Tax for private companies, for the financial years 1953–54 to 1960–61 are shown in the table below.

Super Tax and Undistributed Income Tax ceased to be levied on public companies in the 1951–52 financial year and Additional Income Tax and Social Services Contribution ceased in the 1953–54 financial year. For details, see Official Year Book No. 39, page 846 and No. 40, page 743.

RATES OF TAX: COMPANIES, 1953-54 TO 1960-61 FINANCIAL YEARS.

(Pence per £.)

Type of Company.	Rate of Income Tax and Social Services Contribution—						Rate of Additional Tax on Undistributed Income.
	1953–54 to 1955–56.		1956–57.		1957–58 to 1960–61.		1953–54 to 1960–61.
	Up to £5,000.	On Remainder of Taxable Income.	Up to £5,000.	On Remainder of Taxable Income.	Up to £5,000.	On Remainder of Taxable Income.	Undistributed Amount—Additional Tax.
Private	48	72	60	84	54	78	120
Co-operative	60	84	72	96	66	90	..
Non-Profit(a)—							
Friendly Society Dispensaries	60	84	72	96	66	66	..
Other(b)	60	84	72	96	66	90	..
Life Assurance—							
Mutual	48	72	60	84	54	78	..
Other—							
(1) Mutual Income ..	48	72	60	84	54	78	..
(2) Other Income(c) ..	(d) 72	84	(d) 84	96	(d) 78	90	..
Other	(d) 72	84	(d) 84	96	(d) 78	90	..
Interest paid to a Non-Resident(e)	84	84	96	96	90	90	..

(a) Incomes not exceeding £104 are exempt from tax. (b) Where the taxable income does not exceed £208 (1953–54 to 1955–56), £228 (1956–57) or £231 (1957–58 to 1960–61) the tax may not exceed one half (1953–54 to 1955–56, 1957–58 to 1960–61) or eleven-twentieths (1956–57) of the amount by which the taxable income exceeds £104. (c) The rate of 72d. (1953–54 to 1955–56), 84d. (1956–57) or 78d. (1957–58 to 1960–61) is levied on the amount by which the £5,000 exceeds the mutual income. (d) For non-resident companies dividends included in this part of the taxable income are taxed at 60d. (1953–54 to 1955–56), 72d. (1956–57) and 66d. per £1 (1957–58 to 1960–61). (A resident company is allowed a rebate of tax in respect of dividends received.) (e) If the non-resident is not a company, tax is paid only on income in excess of £104.

A private company incurs liability for additional tax on its undistributed income if it fails to make a sufficient distribution of income within a specified period after the close of the year of income. The tax is levied on the undistributed amount which, for practical purposes, is the taxable income less—

- (a) Primary income tax and social services contribution payable;
- (b) Retention allowance (i.e., the proportion of the reduced distributable income which a company may retain without incurring liability for undistributed income tax); and
- (c) Certain dividends paid by the company.

For the financial years 1953–54 to 1958–59, the retention allowance was the following proportion of the reduced distributable income:—

- On the first £1,000 or part, 50 per cent.
- On the next £1,000 or part, 40 per cent.
- On the next £1,000 or part, 35 per cent.
- On the next £1,000 or part, 30 per cent.
- On the balance, 25 per cent., and
- Ten per cent. of distributable income from property, except dividends from other private companies.

For 1959-60 and 1960-61, the minimum retention allowance in relation to business profits has been increased to 35 per cent. The new rates are as follows:—

- On the first £1,000 or part, 50 per cent.
- On the next £1,000 or part, 40 per cent.
- On the balance, 35 per cent.

The retention allowance in respect of distributable income from property, except dividends from other private companies, is unchanged at 10 per cent.

For the financial years 1953-54 to 1960-61, the reduced distributable income is calculated by deducting from the taxable income the primary tax payable and the amount of all property income included in taxable income. The additional tax on undistributed income was imposed at a flat rate of 10s. in the £1 on the undistributed amount.

12. Yield of Income Taxes.—(i) *Collections from Income Taxes.* The following table shows the collections of taxes imposed on income for the years 1955-56 to 1959-60:—

INCOME TAX COLLECTIONS.

(£'000.)

Year.	Total.		
	Common-wealth.(a)	State.(b)	Total.
1955-56	573,988	74	574,062
1956-57	620,298	23	620,321
1957-58	650,419	33	650,452
1958-59	608,660	15	608,675
1959-60	671,294	8	671,302

(a) Includes Social Services Contribution, War Time (Company) Tax, Super Tax, Undistributed Profits Tax and Wool Deduction. (b) Amounts shown are arrears of State income taxes existing prior to the introduction of the uniform tax arrangement.

(ii) *Commonwealth Income Tax Assessed.* The amounts of Commonwealth Taxes assessed on the income of recent years are shown in the following table. The amounts are shown under the year in which most of the assessments were made, i.e., the year following the income year. Income taxes assessed on income for past years and for the years shown after the close of the normal assessing period, are not included.

COMMONWEALTH INCOME TAXES ASSESSED.

(£'000.)

Tax.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Individuals—					
Income Tax and Social Services Contribution	(a)336,496	316,027	346,355	390,596	355,064
Companies—					
Income Tax	158,887	174,997	210,664	212,707	214,683
Additional Tax on Undistributed Income of Private Companies	4,001	3,654	2,951	2,512	1,835
Total	499,384	494,678	559,970	605,815	571,582

(a) Includes assessments issued to 30th June, 1958.

(iii) *Commonwealth Income Tax and Social Services Contribution, 1958-59 Assessment Year.* The following tables show, for the 1958-59 assessment year, details of the number of taxpayers, income, and net income tax and social services contribution assessed for individuals and resident and non-resident companies. For further information of this nature, see the annual bulletin *Finance, Part II.—Commonwealth Taxation* (No. 50) issued by this Bureau.

COMMONWEALTH INCOME TAX AND SOCIAL SERVICES CONTRIBUTION: 1958-59 ASSESSMENT(a)—NUMBER OF TAXPAYERS, ACTUAL INCOME(b), TAXABLE INCOME(c) AND NET INCOME TAX AND SOCIAL SERVICES CONTRIBUTION ASSESSED—INDIVIDUALS.

(Incomes derived in the year 1957-58.)

Grade of Actual Income(b) and State or Territory of Assessment.	Number of Taxpayers.			Actual Income. (b)	Taxable Income. (c)			Net Income Tax and Social Services Contribution Assessed.
	Males.	Females.	Total	Total.	Salary and Wages.	Other Income.	Total.	
£ £	No.	No.	No.	£'000.	£'000.	£'000.	£'000.	£'000.
105- 199 ..	54,473	103,740	158,213	24,409	19,334	4,010	23,344	202
200- 299 ..	66,959	121,784	188,743	47,409	35,734	8,221	43,955	827
300- 399 ..	91,319	137,214	228,533	80,130	60,493	12,169	72,662	2,285
400- 499 ..	103,353	153,578	256,931	115,501	84,597	18,258	102,855	4,427
500- 599 ..	115,546	190,498	306,044	168,418	125,361	22,843	148,204	8,090
600- 699 ..	138,301	157,695	295,996	192,084	137,023	26,450	163,473	10,366
700- 799 ..	220,614	97,978	318,592	239,693	162,847	29,212	192,059	13,413
800- 899 ..	329,737	58,555	388,292	330,281	220,962	31,847	252,809	18,856
900- 999 ..	357,966	33,595	391,561	371,376	246,570	32,266	278,836	22,865
1,000-1,099 ..	305,855	21,836	327,691	343,459	222,883	31,982	254,865	22,593
1,100-1,199 ..	230,139	14,128	244,267	280,143	177,682	30,148	207,830	19,903
1,200-1,299 ..	167,381	10,418	177,799	221,668	135,998	28,371	164,369	16,857
1,300-1,399 ..	125,782	7,747	133,529	179,790	108,220	25,955	134,175	14,750
1,400-1,499 ..	88,194	6,346	94,540	136,782	79,184	24,145	103,329	12,148
1,500-1,999 ..	206,404	18,085	224,489	380,513	195,595	96,550	292,145	39,708
2,000-2,999 ..	96,948	12,623	109,571	260,196	91,539	118,572	210,111	38,476
3,000-3,999 ..	29,779	4,518	34,297	117,478	29,795	69,699	99,494	23,975
4,000-4,999 ..	13,501	2,011	15,512	68,858	15,380	44,486	59,866	17,199
5,000-9,999 ..	15,903	2,500	18,403	120,820	23,454	84,519	107,973	40,127
10,000-14,999 ..	2,127	426	2,553	30,344	5,141	22,572	27,713	13,114
15,000 and over	975	187	1,162	27,908	3,710	20,980	24,690	13,788
Total Residents	2,761,256	1,155,462	3,916,718	3,737,260	2,181,502	783,255	2,964,757	353,969
Central Office ..	7,931	5,402	13,333	37,017	6,883	24,967	31,850	10,353
New South Wales	1,032,545	443,459	1,476,004	1,429,392	875,878	259,774	1,135,652	134,700
Victoria ..	786,655	357,652	1,144,307	1,100,830	649,224	234,754	883,978	106,625
Queensland ..	380,737	136,888	517,625	468,358	246,568	115,869	362,437	42,059
South Australia	255,252	102,974	358,226	327,208	187,524	71,832	259,356	28,487
Western Australia	188,756	68,822	257,578	232,771	130,523	50,651	181,174	19,490
Tasmania ..	90,385	33,396	123,781	112,796	65,876	21,997	87,873	9,410
Nor. Territory ..	5,451	1,537	6,988	8,351	4,990	1,104	6,094	760
Aust. Cap. Ter.	13,544	5,332	18,876	20,537	14,036	2,307	16,343	2,085
Total Residents	2,761,256	1,155,462	3,916,718	3,737,260	2,181,502	783,255	2,964,757	353,969
Total Non-residents	2,370	2,204	4,574	5,818	723	4,666	5,389	1,095
Grand Total	2,763,626	1,157,666	3,921,292	3,743,078	2,182,225	787,921	2,970,146	355,064

(a) Assessments in respect of 1957-58 incomes issued to 30th September, 1959. Assessments issued after that date are not included. (b) Actual income is defined briefly as "Gross income including exempt income less expenses incurred in gaining that income". (c) Taxable income is the income remaining after deducting from assessable income all allowable deductions.

**COMMONWEALTH INCOME TAX AND SOCIAL SERVICES CONTRIBUTION,
1958-59 ASSESSMENT(a)—NUMBER OF TAXPAYERS, ACTUAL INCOME(b),
TAXABLE INCOME(c) AND NET TAX ASSESSED—RESIDENT AND NON-
RESIDENT COMPANIES.**

(Income derived in the year 1957-58.)

Grade of Taxable Income(c) and State or Territory of Assessment.				Number of Taxpayers.	Actual Income.(b)	Taxable Income.(c)	Net Tax Assessed.(d)
£	£			No.	£'000.	£'000.	£'000.
1-	999	..	..	12,298	6,002	4,250	957
1,000-	4,999	..	..	14,121	40,542	37,465	8,228
5,000-	9,999	..	..	5,614	41,170	39,030	9,489
10,000-	19,999	..	..	3,239	47,156	44,973	12,175
20,000-	49,999	..	..	2,320	74,699	71,461	20,854
50,000-	99,999	..	..	968	70,509	67,892	20,292
100,000-	199,999	..	..	528	75,158	73,726	22,131
200,000-	499,999	..	..	301	90,525	88,569	26,968
500,000-	999,999	..	..	104	72,347	69,924	21,109
1,000,000 and over		..	..	79	255,618	226,713	72,480
<i>Total</i>				39,572	773,726	724,003	214,683
Central Office	..	..	..	3,126	401,969	363,324	114,092
New South Wales	..	..	..	16,458	156,035	152,102	42,702
Victoria	..	..	..	10,987	118,517	115,803	31,098
Queensland	..	..	..	2,795	32,595	31,603	9,728
South Australia	..	..	..	3,544	32,189	31,382	8,375
Western Australia	..	..	..	1,458	19,852	17,472	5,434
Tasmania	..	..	..	784	8,645	8,512	2,709
Northern Territory	..	..	..	78	491	488	132
Australian Capital Territory	..	..	..	342	3,433	3,317	413
<i>Total</i>				39,572	773,726	724,003	214,683

(a) Assessments in respect of 1957-58 incomes issued to 31st December, 1959. Assessments issued after that date are not included. (b) Actual income is defined briefly as "Gross income including exempt income less expenses incurred in gaining that income". (c) Taxable income is the income remaining after deducting from assessable income all allowable deductions. (d) Excludes additional tax levied on the undistributed income of Private Companies, £1,835,000.

(iv) *Commonwealth Income Tax on Residents—Grades of Income.* Individual income taxes assessed on residents are distributed according to grades of actual income in the following table. The year shown in each case refers to the year in which assessment was made, i.e., the year following the income year. The figures relate only to assessments made on the income of the previous year during the normal assessing period. Assessments issued after the normal assessing period are not included.

**COMMONWEALTH INCOME TAXES AND SOCIAL SERVICE CONTRIBUTIONS
ON RESIDENT INDIVIDUALS IN GRADES OF ACTUAL INCOME.(a)**

Grade of Actual Income.(b)		1955-56.		1956-57.		1957-58.		1958-59.	
		No. of Tax-payers.	Tax.	No. of Tax-payers.	Tax.	No. of Tax-payers.	Tax.	No. of Tax-payers.	Tax.
£	£		£'000.		£'000.		£'000.		£'000.
105-199	..	164,808	214	162,809	208	153,674	192	158,213	202
200-299	..	216,963	965	206,419	911	191,438	828	188,743	827
300-399	..	248,479	2,521	244,801	2,477	232,726	2,323	228,533	2,285
400-499	..	280,227	4,984	273,853	4,822	262,023	4,540	256,931	4,427
500-599	..	322,109	8,521	318,290	8,436	311,057	8,233	306,044	8,090
600-699	..	314,943	10,737	303,339	10,570	295,767	10,376	295,996	10,366
700-799	..	406,000	16,723	357,134	15,109	332,640	14,207	318,592	13,413
800-899	..	417,227	21,140	395,107	20,164	396,438	20,317	388,292	18,856
900-999	..	343,406	21,132	363,075	22,513	383,557	23,162	391,561	22,865
1,000-1,099	..	257,924	18,807	290,610	21,376	313,847	22,607	327,691	22,593
1,100-1,199	..	174,712	15,032	209,609	18,273	230,074	19,673	244,267	19,903
1,200-1,299	..	118,569	12,084	151,068	15,327	167,944	16,777	177,799	16,857
1,300-1,399	..	79,891	9,478	108,192	12,807	124,992	14,401	133,529	14,750
1,400-1,499	..	56,835	7,787	76,105	10,365	89,650	11,874	94,540	12,148
1,500-1,999	..	134,831	26,067	181,225	34,332	211,992	38,724	224,489	39,708
2,000-2,999	..	79,743	30,953	95,565	35,939	113,643	40,897	109,571	38,476
3,000-3,999	..	28,800	21,499	31,869	23,466	38,205	26,869	34,297	23,975
4,000-4,999	..	13,592	15,799	14,879	17,166	18,037	20,084	15,512	17,199
5,000-9,999	..	17,428	39,381	18,238	41,359	22,772	50,833	18,403	40,127
10,000-14,999	..	2,592	13,441	2,586	13,491	3,643	19,101	2,553	13,114
15,000-29,999	..	1,246	11,857	1,156	10,972	1,668	16,008	988	9,319
30,000-49,999	..	157	2,877	145	2,765	215	4,227	130	2,522
50,000 and over	..	68	2,735	56	2,379	72	2,862	44	1,947
Total	..	3,680,550	314,734	3,806,130	345,227	3,896,074	389,115	3,916,718	353,969

(a) Actual income is defined briefly as "Gross Income including exempt income less expenses incurred in gaining that income". (b) For the years prior to 1956-57 the grades of actual income were £105-200, 201-300, 301-400, etc.

CHAPTER XXII.

AGRICULTURAL PRODUCTION.

NOTE.—Values of Australian oversea trade shown throughout this chapter are expressed as £A. f.o.b. port of shipment, except where otherwise indicated.

For greater detail on the subjects dealt with in this chapter, see the annual bulletins *Primary Industries, Part I.—Rural Industries* and *Part II.—Non-Rural Industries and Value of Production* published by this Bureau. For advance information on these subjects, the following mimeograph statistical bulletins should be consulted—*Rural Land Use and Crop Statistics* (annual), *Value of Production and Indexes of Price and Quantum of Farm Production* (annual), *Wheat Industry* (usually two per year), *Fruit Growing Industry* (annual), *Size Classification of Rural Holdings, 1955–56*, *Tractors on Rural Holdings* (annual), and *New Tractors: Receipts, Sales and Stocks* (quarterly). The annual mimeograph *Report on Food Production and the Apparent Consumption of Foodstuffs and Nutrients in Australia* contains details of the production, distribution and apparent consumption of foodstuffs obtained from the agricultural industry.

§ 1. Introductory.

In general, statistics in this chapter relating to agricultural production are derived from "census" returns supplied by approximately 250,000 farmers who utilize one acre or more of land for agricultural or pastoral purposes, and the latest figures available are those for the year 1959–60. The returns are collected on a substantially uniform basis in all States at 31st March, each year, and relate to areas sown and crops produced in the previous twelve months. Where harvests are not completed by March (e.g. potatoes), provision is made in some States for a special collection after the harvest is completed and in others for the inclusion of the total estimated yield expected from the complete harvest. In cases where additional data are available from marketing authorities or other sources, these are used in conjunction with the "census" returns. The statistics published in this chapter are therefore shown in "agricultural" years. For most purposes, there will be little error involved in considering them as applying to years ending on 30th June.

§ 2. Progress of Agriculture.

1. *Early Records.*—In an "Account of Live Stock and Ground under Crop in New South Wales, 19th August, 1797", Governor Hunter gives the acreage of crops as follows:—Wheat, 3,361 acres; maize, 1,527 acres; barley, 26 acres; potatoes, 11 acres; and vines, 8 acres.

The following details of crops were collected in 1808:—Wheat, 6,874 acres; maize, 3,389 acres; barley, 544 acres; oats, 92 acres; peas and beans, 100 acres; potatoes, 301 acres; turnips, 13 acres; orchards, 546 acres; and flax and hemp, 37 acres.

A brief reference to the attempts at cultivation by the first settlers in New South Wales and to the discovery of suitable agricultural land on the Parramatta and Hawkesbury Rivers prior to the year 1813 and west of the Blue Mountains thereafter is contained in early issues of the Official Year Book. (See No. 22, p. 670.)

By the year 1850, the area of crops had increased to 491,000 acres, of which 198,000 acres were cultivated in what is now the State of New South Wales, and 169,000 acres in Tasmania. At the end of 1850, the area under cultivation in Victoria, which was then the Port Phillip District of New South Wales, was 52,190 acres.

The gold discoveries of 1851 and subsequent years had at first a very disturbing effect on agricultural progress, the area of crops declining from 491,000 acres in 1850 to 458,000 acres in 1854. The demand for agricultural products occasioned by the large influx of population was, however, soon reflected in the increased area cultivated, for at the end of 1858 the land under crop in Australia exceeded a million acres.

2. **Progress of Cultivation.**—The following table shows the area of crops in each of the States and Territories of Australia at decennial intervals since 1860–61 and during each of the eleven seasons 1951–52 to 1959–60. On page 897 there is a graph showing the area of crops in Australia from 1900–01 onward.

AREA OF CROPS.
(’000 Acres.)

Season.	N.S.W.	Vic.	Q’land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
1860–61 ..	246	387	4	359	25	153	..	..	1,174
1870–71 ..	385	693	52	802	55	157	..	..	2,144
1880–81 ..	606	1,549	114	2,087	64	141	..	..	4,561
1890–91 ..	853	2,032	225	2,093	70	157	..	..	5,430
1900–01 ..	2,447	3,114	458	2,370	201	224	..	..	8,814
1910–11 ..	3,386	3,952	667	2,747	855	287	..	..	11,894
1920–21 ..	4,465	4,490	780	3,231	1,805	297	..	2	15,070
1930–31 ..	6,811	6,716	1,144	5,426	4,792	268	2	5	25,164
1940–41 ..	6,375	4,467	1,734	4,255	4,027	254	..	6	21,118
1950–51 ..	4,761	4,537	2,077	3,812	4,650	290	(a)	6	20,133
1951–52 ..	4,704	4,505	2,023	3,825	4,693	291	(a)	6	20,047
1952–53 ..	4,837	4,500	2,423	3,780	4,817	303	(a)	6	20,666
1953–54 ..	5,425	4,737	2,361	4,034	4,633	330	(a)	7	21,527
1954–55 ..	5,394	4,704	2,593	4,229	5,112	301	1	5	22,339
1955–56 ..	5,660	4,812	2,604	4,220	5,342	327	1	7	22,973
1956–57 ..	3,789	3,904	2,469	4,273	5,233	288	1	5	19,962
1957–58 ..	5,000	4,431	2,600	4,233	5,615	292	1	5	22,177
1958–59 ..	6,820	5,040	2,852	4,436	6,135	339	1	8	25,631
1959–60 ..	7,137	4,815	2,926	4,400	6,495	322	1	7	26,103

(a) Not available.

The progress of agriculture was practically uninterrupted from 1860–61 to 1915–16, when, as the result of a special effort to raise wheat during the 1914–18 War, 18.5 million acres were cultivated in Australia. There was a temporary set back in later war years, but after the termination of hostilities the area continued to expand and rose steadily to the record area of 25.2 million acres in 1930–31. Thereafter, the slump in wheat prices seriously depressed the agricultural industry and the area of crops receded to just under 20 million acres in 1935–36.

By 1938–39, the industry had recovered from the depression and the total area under cultivation reached the high level of 23.5 million acres. Thereafter, as a result of war-time man-power shortages and shipping difficulties, the area declined to less than 16 million acres in 1943–44. After 1943–44, production gradually increased again until, in 1947–48, 22.3 million acres were sown to crops. This upward trend was reversed after 1948–49, largely because, as a result of the high prices of wool, many primary producers transferred from agricultural to pastoral production. Since 1951–52, when the area sown was 20.0 million acres, the area under wheat has increased steadily, except for 1956–57 when excessively wet conditions in the eastern States caused a drop in the area sown, until it reached the record level of 26.1 million acres in 1959–60. As the area under wheat in Australia constitutes a large proportion of the total area cropped (42 per cent. during the five years ended 1959–60), fluctuations in the latter follow broadly the same pattern as changes in wheat areas.

3. **Area under Sown Pastures.**—In all States, there are considerable areas of grasses, mainly sown on land from which scrub has been cleared or on land which it is desired to rest from cultivation. These areas have expanded from about 5.3 million acres in 1929–30 to about 33.3 million acres in 1959–60.

4. **Australian Agricultural Council.**—Arising out of a conference of Commonwealth and State Ministers on agricultural and marketing matters, held at Canberra in December, 1934, a permanent organization known as the Australian Agricultural Council was formed. The Council consists of the Commonwealth Ministers for Primary Industry and Territories and the State Ministers of Agriculture, with power to co-opt the services of other Commonwealth and State Ministers as required. The principal functions of the Council are:— (i) the promotion of the welfare and development of agricultural industries generally; (ii) exchange of information on agricultural production and marketing; (iii) the improvement

of the quality of agricultural products and the maintenance of high grade standards; (iv) to ensure, as far as possible, balance between production and available markets; and (v) organized marketing, etc.

In addition, a permanent Standing Committee on Agriculture was formed to advise the Council, to secure co-operation and co-ordination in agricultural research, to advise State and Commonwealth Governments on the initiation and development of agricultural research, and to secure co-operation between all Governments in respect of quarantine measures against pests and diseases of plants and animals.

§ 3. Distribution, Production and Value of Crops.

1. Area of Crops in States and Territories.—The following table shows the areas in the several States, the Northern Territory and the Australian Capital Territory of each of the crops for the season 1959–60.

AREA OF CROPS, 1959–60.
(Acres.)

Crop.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Cereals for Grain—									
Barley—									
2 Row ..	79,477	263,731	238,117	1,233,534	52,760	12,396	..	..	2,379,467
6 Row ..	38,792	13,870	21,855	56,402	368,533				
Maize ..	51,738	3,383	129,803	(a)	4	..	..	..	(b) 184,928
Oats ..	567,341	673,002	21,478	505,499	1,240,357	22,017	..	230	3,029,924
Panicum, Millet and									
Setaria ..	683	1,397	67,581	(a)	(a)	..	..	..	(b) 69,661
Rice ..	48,950	..	..	..	(a)	..	(a)	..	(b) 48,950
Rye ..	3,142	22,344	198	37,414	9,118	491	..	..	72,707
Sorghum ..	51,195	..	220,094	..	(a)	..	264	..	(b) 271,553
Wheat ..	3,950,389	2,260,730	683,134	1,549,499	3,218,596	8,264	..	1,750	12,172,362
Hay ..	482,116	847,548	80,819	245,299	319,486	126,544	326	3,059	2,105,197
Green Fodder ..	1,578,759	422,237	725,155	595,713	708,793	62,229	240	968	4,094,094
Other Stock Fodder ..	5,804	52,852	8,728	32,868	4,065	32,438	90	..	136,845
Grass Seed—									
Lucerne ..	28,607	(a)	1,307	23,410	(a)	12	..	..	(b) 53,336
Clover ..	15,024	5,091	..	4,513	16,747	1,005	..	..	42,380
Other ..	13,012	12,633	6,607	2,801	4,285	1,429	..	874	41,641
Industrial Crops—									
Broom Millet ..	1,508	239	252	..	..	..	..	..	1,999
Canary Seed ..	..	..	5,989	(a)	..	..	..	..	(b) 5,989
Cotton ..	97	(a)	20,132	..	(a)	..	..	..	(b) 20,229
Flax—									
For Fibre ..	..	..	..	..	1,307	..	..	..	1,307
For Linseed ..	11,933	24,850	60,837	1,687	186	..	..	..	99,493
Hops ..	..	466	..	..	(a)	1,461	..	..	(b) 1,927
Peanuts ..	837	..	41,547	..	(a)	..	388	..	(b) 42,772
Sugar Cane—									
For Crushing ..	14,248	..	299,732	..	..	..	..	..	313,980
Other (excluding									
fodder) ..	10,902	..	162,153	..	..	..	..	..	173,055
Sunflower Seed ..	68	221	9,940	..	..	..	..	..	10,229
Tobacco ..	2,142	6,424	9,527	..	1,561	..	..	..	19,654
Other ..	(a)	1,026	215	239	..	318	..	..	(b) 1,798
Vegetables for Human									
Consumption—									
Onions ..	697	3,994	3,550	641	392	29	..	12	9,315
Potatoes ..	19,159	48,506	12,311	5,872	6,964	15,525	(d)	67	(b) 108,404
Other Vegetables ..	46,110	35,211	34,834	9,758	7,355	13,812	168	78	147,326
Vineyards—									
Bearing ..	15,978	42,244	2,755	53,760	8,106	..	1	..	122,844
Not Bearing ..	1,258	1,885	328	3,093	845	..	..	..	7,409
Orchards and other									
Fruit Gardens—									
Bearing ..	72,687	46,918	30,214	26,664	18,551	20,582	51	46	215,713
Not Bearing ..	21,183	21,649	12,373	10,691	5,206	2,131	52	11	73,296
Nurseries and Cut									
Flowers ..	902	2,679	294	192	304	257	..	8	4,636
All other Crops ..	2,140	83	14,687	98	1,261	730	..	15	19,014
Total Area ..	7,136,878	4,815,213	2,926,546	4,399,647	6,494,782	321,670	1,580	7,118	26,103,434

(a) Not available for publication. Included in "All other Crops", except in respect of rice in the Northern Territory, which is excluded from "Total Area". (b) Incomplete. See footnotes to individual States. (c) Not available for publication. Included with other Grass Seed. (d) Not available for publication. Included with Other Vegetables.

2. **Relative Areas of Crops in States and Territories.**—The proportion of each of the major crops cultivated in the various States and Territories to the total area of crops for the season 1959-60 is shown in the next table.

RELATIVE AREAS OF CROPS, 1959-60.

(Per cent.)

Crop.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Wheat (Grain) ..	55.4	46.9	23.3	35.2	57.3	2.6	..	24.6	46.6
Green Fodder ..	22.1	8.8	24.8	13.6	10.9	19.4	15.2	13.6	15.7
Oats (Grain) ..	7.9	14.0	0.7	11.5	19.1	6.8	..	3.2	11.6
Barley (Grain) ..	1.7	5.8	8.9	29.3	6.5	(a)	..	..	9.1
Hay ..	6.8	17.6	2.8	5.6	4.9	39.3	20.6	43.0	8.1
Sugar-cane, Crushed ..	0.2	..	10.2	..	..	..	..	..	1.2
Total Orchards and Fruit Gardens ..	1.3	1.4	1.5	0.9	0.4	7.1	6.5	0.8	1.1
Sorghum ..	0.7	..	7.5	..	(a)	..	16.7	..	1.0
Maize (Grain) ..	0.7	0.1	4.4	(a)	..	..	..	..	0.7
Total Vineyards ..	0.2	0.9	0.1	1.3	0.1	..	..	..	0.5
Potatoes ..	0.3	1.0	0.4	0.1	0.1	4.8	(a)	0.9	0.4
All other ..	2.7	3.5	15.4	2.5	0.7	20.0	41.0	13.9	4.0
Total ..	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

(a) Not available for publication. Included in "All other".

3. **Area of Principal Crops in Australia.**—The area of the principal crops during each of the five seasons ended 1959-60 is shown hereunder:—

AREA OF PRINCIPAL CROPS: AUSTRALIA.

('000 Acres.)

Crop.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
Cereals for Grain—					
Barley, 2 and 6 Row ..	1,894	2,093	2,121	2,381	2,379
Maize ..	168	182	184	180	185
Oats ..	3,354	2,556	2,959	3,974	3,030
Rice ..	41	50	47	47	49
Wheat ..	10,166	7,874	8,848	10,399	12,172
Hay ..	2,241	1,861	2,237	3,018	2,105
Green Fodder ..	3,167	3,246	3,746	3,578	4,094
Industrial crops—					
Cotton ..	13	11	10	10	20
Hops ..	2	2	2	2	2
Sugar-cane ..	499	499	506	511	487
Tobacco ..	11	12	13	15	20
Vegetables for Human Consumption—					
Onions ..	7	9	11	9	9
Potatoes ..	94	101	118	105	108
Other vegetables ..	155	172	164	153	147
Vineyards ..	135	132	131	131	130
Orchards ..	279	270	276	287	289
All other Crops ..	747	892	804	831	877
Total ..	22,973	19,962	22,177	25,631	26,103

4. **Size Classification of Principal Crops.**—A special series of tabulations relating to rural holdings in Australia was compiled for 1955-56 and published in full detail in a series of mimeographed bulletins, *Size Classification of Rural Holdings, 1955-56*. Condensed tables also appear in the bulletin *Primary Industries—Part I.—Rural Industries*, No. 51. The tables show a classification by area of holding and area of crop for wheat, oats, barley, sugarcane, tobacco, potatoes, other vegetables for human consumption, vineyards, and fruit, also a classification of holdings growing major crops and carrying livestock. Similar tabulations are being compiled for 1959-60, but details are not yet available.

5. **Weights and Measures.**—Details of the weights and measures used in recording production of agricultural commodities appear in the introduction to the bulletin *Primary Industries—Part I.—Rural Industries*.

6. **Production of Crops in States and Territories.**—The following table shows production of crops in the various States and Territories for the season 1959-60.

PRODUCTION OF CROPS, 1959-60.

Crop.	Unit of Quantity.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Cereals for Grain—										
Barley—										
2 Row	'000 bus.	1,734	5,318	6,134	11,463	926	418	..	..	34,079
6 Row	"	847	275	516	394	6,054				
Maize	"	2,485	180	4,060	(a)	..	..	..	(b)	6,725
Oats	"	11,125	12,701	394	2,504	19,599	512	..	6	46,841
Panicum, Millet and Setaria	"	15	30	1,327	(a)	(a)	..	..	..	(b) 1,372
Rice	"	6,732	..	..	(a)	..	..	(a)	..	(b) 6,732
Rye	"	42	139	3	125	77	7	..	..	393
Sorghum	"	1,452	..	6,630	(a)	..	..	4	..	(b) 8,086
Wheat	"	75,358	38,793	13,522	11,929	58,670	182	..	47	198,501
Hay	" tons	779	1,351	179	207	433	221	..	7	3,177
Grass Seed—										
Lucerne	cwt.	16,235	(a)	823	20,369	(a)	7	..	..	(b) 37,434
Clover	"	38,344	4,665	..	4,461	37,766	608	..	..	85,844
Other	"	9,292	12,998	13,313	1,097	7,344	2,546	..	158	46,748
Industrial Crops—										
Broom Millet—										
Fibre	"	9,891	1,160	979	..	..	..	..	..	12,030
Grain	bus.	6,849	840	(c)	..	..	..	..	..	(b) 7,689
Canary Seed	'000 bus.	..	..	84	(a)	..	..	..	..	(b) 84
Cotton, Unginned	'000 lb.	108	(a)	9,355	..	(a)	..	..	..	(b) 9,463
Flax—										
Straw	ton	..	..	..	..	2,723	..	..	..	2,723
Linseed	"	2,922	7,391	16,247	191	48	..	..	..	26,799
Hops (Dry Weight)	cwt.	..	6,788	..	..	(a)	25,002	..	..	(b) 31,790
Peanuts	"	10,639	..	360,314	..	(a)	..	4,306	..	(b) 375,259
Sugar-cane for Crushing	'000 tons	574	..	8,428	..	..	..	..	..	9,002
Sunflower Seed	cwt.	184	1,249	54,408	..	..	..	..	..	55,841
Tobacco, Dried Leaf	'000 lb.	1,438	7,401	9,149	..	1,080	..	..	..	19,068
Vegetables for Human Consumption—										
Onions	ton	3,658	27,808	14,708	5,644	4,830	135	..	39	56,822
Potatoes	"	81,908	242,548	51,468	48,923	56,000	98,000	(a)	360	(b) 579,207
Vineyards—										
Grapes—										
For Drying	"	34,184	195,908	..	42,126	5,900	..	..	..	278,118
Table	"	4,531	6,082	3,054	1,085	2,360	..	2	..	17,114
Wine	"	20,690	9,445	182	114,064	5,237	..	..	..	149,618

(a) Not available for publication.

(b) Incomplete; see footnotes to individual States.

(c) Not available.

7. **Production of Principal Crops in Australia.**—The following table shows the production of the principal crops for the five years ended 1959-60.

PRODUCTION OF PRINCIPAL CROPS : AUSTRALIA.

Crop.	Unit of Quantity.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
Cereals for Grain—						
Barley, 2 and 6 Row ..	'000 bus.	41,655	49,279	30,466	62,976	34,079
Maize	" "	4,755	5,494	5,639	6,717	6,725
Oats	" "	56,487	35,396	31,426	86,905	46,841
Rice(a)	" "	4,725	4,262	5,658	6,619	6,732
Wheat	" "	195,443	134,455	97,566	215,121	198,501
Hay	" tons	3,625	3,043	2,969	5,090	3,177
Industrial Crops—						
Cotton, Unginned ..	" lb.	5,359	3,809	3,390	4,004	9,463
Hops (dry weight)(b) ..	cwt.	34,374	25,230	32,710	36,499	31,790
Sugar-cane for Crushing ..	'000 tons.	8,901	9,272	9,249	10,213	9,002
Tobacco (Dried leaf) ..	" lb.	6,106	8,709	11,567	13,970	19,068
Vegetables for Human Consumption—						
Onions	" tons	40	54	72	55	57
Potatoes	" "	402	519	575	575	579
Vineyards—						
Grapes	" "	378	495	550	537	445
Wine made(c)	" gals.	22,895	30,743	33,854	32,538	28,396
Dried Vine Fruits	" tons	59	80	91	87	70

(a) Incomplete, excludes Northern Territory. (b) Excludes Western Australia. (c) Net factory and farm production of beverage and distillation wine. This excludes the liquid gallonage of spirits added in wine fortifying.

8. **Yield per Acre of Principal Crops in Australia.**—The following table shows for Australia the yield per acre of the principal crops for the five years ended 1959-60.

YIELD PER ACRE OF PRINCIPAL CROPS : AUSTRALIA.

Crop.	Unit of Quantity.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
Cereals for Grain—						
Barley, 2 and 6 Row ..	bushel	20.0	23.5	14.4	26.5	14.3
Maize	"	28.4	30.3	30.6	37.4	36.4
Oats	"	16.8	13.8	10.6	21.9	15.5
Rice(a)	"	114.7	84.4	121.0	140.7	137.5
Wheat	"	19.2	17.1	11.0	20.7	16.3
Hay	ton	1.62	1.63	1.33	1.69	1.51
Industrial Crops—						
Cotton, Unginned ..	lb.	403	336	327	382	468
Hops (dry weight)(b) ..	cwt.	20.22	13.97	17.73	19.52	16.71
Sugar-cane for Crushing(b) ..	ton	23.88	25.05	24.62	27.63	28.67
Tobacco (Dried leaf) ..	lb.	540	716	876	922	970
Vegetables for Human Consumption—						
Onions	ton	5.69	5.78	6.36	6.22	6.10
Potatoes	"	4.29	5.14	4.88	5.49	5.34
Vineyards—						
Grapes(b)	"	2.97	3.98	4.42	4.33	3.62

(a) Excludes Northern Territory.

(b) Per acre of productive crops.

9. **Gross Value of Principal Crops in Australia.**—The following table shows the gross value of principal crops at the principal markets in Australia for the five years ended 1959-60.

GROSS VALUE^(a) OF PRINCIPAL CROPS : AUSTRALIA.
(£'000.)

Crop.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
Cereals for Grain—					
Barley	20,994	24,896	17,555	33,304	16,623
Maize	3,464	3,732	4,995	4,629	4,029
Oats	19,373	12,239	15,951	30,964	18,396
Rice	(b) 3,406	(b) 3,069	(b) 4,045	(b) 4,731	(b) 4,450
Wheat	126,091	92,647	66,892	144,087	(c) 137,762
Hay	34,807	30,524	39,277	46,503	34,433
Green Fodder (d)	5,950	5,897	8,571	6,966	7,572
Industrial Crops—					
Cotton, Unginned	307	224	213	249	556
Hops (d)	1,102	857	1,137	1,273	1,159
Sugar-cane	35,786	40,718	47,346	47,276	44,774
Tobacco (Dried leaf)	3,200	4,503	6,202	7,920	10,517
Vegetables for Human Consumption—					
Onions	1,973	2,516	1,274	1,920	2,841
Potatoes	25,895	17,955	9,969	13,109	13,460
Other vegetables for human consumption	27,993	30,190	25,359	25,243	26,611
Grapes	10,511	15,406	18,337	18,496	14,698
Fruit and Nuts	48,349	49,898	59,150	54,025	51,763
All other Crops	15,736	16,877	14,573	19,197	20,710
Total Gross Value ..	384,937	352,148	340,846	459,892	410,354

(a) Includes amounts paid as bounty, relief, etc. (b) Incomplete, excludes Northern Territory.
(c) Includes payment of £3,022,000 by the Commonwealth Government. (d) Incomplete, excludes Western Australia.

10. **Value of Production and Indexes of Price and Quantum of Production.**—(i) *Gross and Net Values, 1959-60.* Values of agricultural production for each State are shown for 1959-60 in the following table. A more detailed reference to the value of production of agriculture and other industries in Australia as well as a brief explanation of the terms used will be found in Chapter XXX.—Miscellaneous.

In computing the net value of production, no deduction has been made for the cost of maintenance of farm buildings and fences, nor for the depreciation of farm plant; consequently, the figures are overstated to that extent.

GROSS, FARM AND NET VALUES OF AGRICULTURAL PRODUCTION, 1959-60.
(£'000.)

State.	Gross Production valued at Principal Markets.	Marketing Costs.	Gross Production valued at Farm.	Value of Materials Used in Process of Production.	Net value of Production. (a)
New South Wales	109,465	23,496	85,969	(b) 7,451	78,518
Victoria	92,411	13,281	79,130	10,218	68,912
Queensland	91,677	10,595	81,082	15,725	65,357
South Australia	35,546	3,780	31,766	7,520	24,246
Western Australia	65,525	8,840	56,685	12,641	44,044
Tasmania	15,489	2,962	12,527	1,882	10,645
Northern Territory	79	..	79	..	79
Australian Capital Territory	162	5	157	7	150
Australia	410,354	62,959	347,395	55,444	291,951

(a) No deduction has been made for depreciation and maintenance. (b) No allowance has been made for costs of power, power kerosene, petrol and other oils.

(ii) *Net Values, 1955-56 to 1959-60.* In the following table, the net value of agricultural production and the net value per head of population are shown by States for the years 1955-56 to 1959-60.

NET VALUE OF AGRICULTURAL PRODUCTION.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
NET VALUE.(a) (£'000.)									
1955-56	63,647	66,465	55,361	41,271	37,350	15,170	42	149	279,455
1956-57	48,425	63,802	60,127	49,688	24,640	7,978	58	143	254,861
1957-58	44,754	64,971	62,898	32,318	27,338	12,050	52	149	244,530
1958-59	82,472	73,661	68,716	50,571	42,746	10,496	59	222	328,943
1959-60	78,518	68,912	65,357	24,246	44,044	10,645	79	150	291,951

NET VALUE PER HEAD OF POPULATION. (£ s. d.)

1955-56	18	1	2	25	18	3	40	18	7	49	9	2	55	16	6	47	10	6	2	8	1	4	8	7	29	19	11
1956-57	13	9	11	24	3	4	43	11	1	57	13	8	35	19	11	24	9	3	3	3	3	3	19	5	26	14	7
1957-58	12	4	8	24	0	0	44	16	5	36	9	7	39	2	8	36	1	4	2	14	8	3	15	10	25	1	10
1958-59	22	2	9	26	10	9	48	3	9	55	13	6	60	0	4	30	15	1	3	0	0	5	4	6	33	1	0
1959-60	20	14	0	24	3	5	45	2	8	25	19	5	60	14	10	30	12	11	3	14	10	3	0	0	28	14	2

(a) No deduction has been made for depreciation and maintenance.

(iii) *Indexes of Quantum and Price of Agricultural Production.* Indexes of quantum and price of agricultural production are shown in the following table. The quantum indexes relate to gross output of farm products valued at constant prices. The quantities of each farm product produced each year have been re-valued at the unit gross value for the period 1936-37 to 1938-39. The price indexes relate to average "prices" of farm products realized at the principal markets of Australia. Average quantities of each product marketed in the period 1946-47 to 1950-51 have been used as fixed weights. Further details on weights used, etc., are to be found in Chapter XXX.—Miscellaneous.

INDEXES OF QUANTUM(a) AND PRICE OF AGRICULTURAL PRODUCTION. (Base : Average 3 years ended June, 1939 = 100.)

Particulars.	1955-56.	1956-57.	1957-58.	1958-59	1959-60.
Quantum Produced—					
Wheat	119	82	59	131	121
Other Crops	144	144	141	187	152
<i>Total, All Crops</i>	<i>134</i>	<i>120</i>	<i>109</i>	<i>165</i>	<i>140</i>
Total per Head of Population	99	86	77	114	94
Price—					
Wheat	319	347	339	337	350
Other Crops	339	327	333	310	313
<i>Total, All Crops</i>	<i>330</i>	<i>336</i>	<i>336</i>	<i>322</i>	<i>329</i>

(a) Indexes of value at constant prices, i.e. quantities revalued at average unit values of the base years (1936-37 to 1938-39).

§ 4. Wheat.

1. *Royal Commission on the Wheat Industry.*—A Royal Commission was appointed in January, 1934, to inquire into and report upon the economic condition of the industries of growing, handling and marketing wheat, and the manufacturing, distributing and selling of flour and bread. A searching inquiry was made by the Commission and the results of its investigations were submitted in a series of five reports. The first and second reports covered the wheat-growing industry, the third that of baking, the fourth the flour-milling industry, while the fifth, completed in February, 1936, dealt with the history of the Commission's investigations and traversed the principal recommendations submitted.

2. **Licensing of Areas Sown to Wheat, and Acreages Sown.**—Details of the operations of the Wheat Stabilization Board in licensing wheat grown during the seasons 1941–42 to 1948–49 will be found in Official Year Book No. 38, pages 940–41. The Board ceased to function on 31st December, 1948.

3. **Legislation relating to Wheat Industry.**—(i) *Stabilized Marketing.* A detailed survey of legislation relating to stabilization of the wheat industry, including controls exercised during the 1914–18 and 1939–45 Wars and legislation establishing the Wheat Stabilization Plan in 1948, is given in the Appendix to Official Year Book No. 37, pages 1295–99.

(ii) *The Australian Wheat Board.* The Australian Wheat Board was constituted in September, 1939, under National Security (Wheat Acquisition) Regulations, to purchase, sell, or dispose of, wheat or wheat products, manage and control all matters connected with the handling, storage, protection, shipment, etc. of wheat acquired, and such other matters as were necessary to give effect to the regulations.

The Board was reconstituted for five years, with similar powers, under the Commonwealth Wheat Stabilization Act 1948, to administer the stabilization plan. The new Board commenced to function on 18th December, 1948. The Board has been continued in existence by the Commonwealth Wheat Industry Stabilization Acts of 1954 and 1958 for the purpose of administering the second and third five-year stabilization plans.

(iii) *Wheat Stabilization Plans.* (a) 1947–48 to 1952–53. Details of the Wheat Stabilization Plan which operated during the seasons 1947–48 to 1952–53 inclusive were published in Official Year Book No. 40, pages 841 and 842, and previous issues.

(b) 1953–54 to 1957–58. Details of the plan which operated during the seasons 1953–54 to 1957–58 inclusive were published in Official Year Book No. 44, page 861, and previous issues.

(c) 1958–59 to 1962–63. Following negotiations during 1958, a new wheat industry stabilization plan was enacted by the Commonwealth and the States towards the end of that year. The new plan follows the lines of the two earlier ones. Details of the plan are as follows.

- (i) *Period of the Plan.* The plan will operate for five years. It will commence with the 1958–59 wheat crop and will end with the marketing of the 1962–63 crop.
- (ii) *Commonwealth Guarantee.* The Commonwealth will guarantee a return of 14s. 6d. a bushel to growers on up to 100 million bushels of wheat exported from the crop in the first year of the plan. The guaranteed return of 14s. 6d. is based on the findings of the recent survey of the economic structure of the wheat industry conducted by the Bureau of Agricultural Economics. It will be adjusted in each of the following years of the plan on up to 100 million bushels in accordance with the movements in costs based on a cost index established from the survey. The first two five-year Wheat Stabilization Plans each guaranteed a similar quantity of 100 million bushels exported.
- (iii) *Australian Wheat Board.* The Australian Wheat Board will be maintained as the sole constituted authority for the marketing of wheat within Australia and for the marketing of wheat and flour for export from Australia for the period of the plan.
- (iv) *Stabilization Fund*—
 - (a) *Export Tax.* A tax will be collected on wheat exported which will be equivalent to the excess of the returns from export sales over the guaranteed return. However, the maximum rate of export tax will be 1s. 6d. a bushel.
 - (b) *Size of Fund.* The ceiling of the Stabilization Fund is established at £20 million; any excess beyond this figure will be returned to growers on the “first-in-first-out” principle.
 - (c) *Balance in Present Wheat Stabilization Fund.* The balance remaining in the Fund at the termination of the present plan will be carried forward to the new plan as the nucleus of a new stabilization fund.
 - (d) *Use of the Stabilization Fund.* When the average export realizations fall below the guaranteed return, the deficiency will be made up first by drawing upon the stabilization fund in respect of up to 100 million bushels of wheat from each crop. When the fund is exhausted, the Commonwealth will meet its obligations under the guarantee.

- (v) *Home Consumption Price.* The home consumption base price for 1958–59, the first year of the plan, has been established as 14s. 6d. a bushel, bulk basis, f.o.r. ports plus 2d. a bushel loading to cover the cost of transporting wheat to Tasmania as outlined in (vi) below. There is provision in the plan for annual adjustments in the following years in accordance with the guaranteed price as outlined in (ii) above.
- (vi) *Freight on Wheat to Tasmania.* Provision is made for a loading on the price of all wheat sold for consumption in Australia to the extent necessary to cover the cost of transporting wheat from the mainland to Tasmania in each season of the plan.
- (vii) *Premium on Western Australian Wheat.* A premium will be paid from export realizations on wheat grown in Western Australia and exported from that State in recognition of the natural freight advantage enjoyed by Western Australia owing to its proximity to the principal overseas markets for wheat. The premium will be 3d. a bushel.

By agreement between the parties concerned, the Australian Wheat Growers' Federation, the States and the Commonwealth, a poll of growers as to acceptance of the plan was not considered necessary. The earlier plans had been approved by polls of growers.

The cost of production of wheat, which for the first season of the plan, 1958–59, was fixed at 14s. 6d. a bushel by the legislation, rose to 14s. 10d. a bushel for the 1959–60 season and to 15s. 2d. a bushel for the 1960–61 season. The guaranteed price for the seasons 1959–60 and 1960–61 was therefore 14s. 10d. and 15s. 2d. a bushel respectively, while the home consumption price, in each case including a loading of 2d. a bushel to cover costs of shipment of wheat to Tasmania, became 15s. and 15s. 4d. a bushel respectively.

(iv) *Wheat Industry Research.* In 1957, the Commonwealth Parliament passed legislation providing for a levy of a farthing a bushel on wheat handled by the Australian Wheat Board. This money, contributed by the growers, is to be spent by the Wheat Research Committees set up in the wheat growing States. These Committees, which consist of representatives of wheatgrowers, universities and State Departments of Agriculture, also received a total of £284,000 under the provisions of the Wheat Acquisition (Undistributed Moneys) Act 1958.

The Commonwealth Government has undertaken to supply additional funds for research (with a maximum of £1 for £1 against the growers' contribution) and has set up the Wheat Industry Research Council to make recommendations on the appropriate expenditure of the Commonwealth contribution.

The Council at its inaugural meeting in February, 1958, considered that possible avenues of research would include the breeding of better varieties, cereal chemistry, soil fertility, mechanization, the industry's cost structure and marketing problems.

The Council and the State Committees have incurred an estimated expenditure of £619,578 up to the end of June, 1960, including grants to the Commonwealth Scientific and Industrial Research Organization, State Departments of Agriculture, Universities and Agricultural Colleges.

4. *Marketing of Wheat.*—(i) *Wheat Acquired and Disposed of.* (a) *Wheat Acquired.* Particulars of wheat acquired by the Australian Wheat Board from the 1955–56 to 1959–60 harvests are shown in the following table:—

AUSTRALIAN WHEAT BOARD : WHEAT ACQUIRED, 1955-56 TO 1959-60.
(’000 Bushels.)

Pool.			Harvest.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
19	..	..	1955-56	51,789	39,079	14,098	26,107	49,649	39	180,761
20	..	..	1956-57	24,014	32,931	5,837	29,154	28,171	22	120,129
21	..	..	1957-58	4,617	29,547	5,247	12,535	29,306	74	81,326
22	..	..	1958-59	59,990	41,216	15,206	29,548	53,348	82	199,390
23	..	..	1959-60	67,067	37,095	11,832	9,112	54,132	91	179,329

(b) *Wheat Disposal.* Details relating to the disposal of wheat during the years ended 30th November, 1956 to 1960, are shown in the following table.

AUSTRALIAN WHEAT BOARD : DISPOSAL OF WHEAT, 1956 TO 1960.(a)
(*'000 Bushels.*)

Particulars.	1956.	1957.	1958.	1959.	1960.
Sold for export as wheat	95,399	66,972	34,399	70,940	97,645
Sold for export as flour (b)	34,950	32,334	16,868	25,248	26,147
Sold for local consumption as flour	39,832	41,162	39,213	40,174	42,713
Sold for other purposes	17,090	21,459	16,894	13,484	16,635

(a) Years ended 30th November.

(b) Includes wheat equivalent of manufactured wheat products exported.

(ii) *Finance.* The Wheat Acquisition Regulations empowered the Minister to arrange with the Commonwealth Bank for advances to the Board, the advances being guaranteed by the Commonwealth Government. The Wheat Industry Stabilization Act 1948 included similar provisions for advances to the reconstituted Board established under that Act and these provisions have been continued in the subsequent legislation.

AUSTRALIAN WHEAT BOARD : FINANCIAL OPERATIONS, POOLS Nos. 19 to 23.
(*£'000.*)

Particulars.	No. 19 Pool.(a) (1955-56 Harvest.)	No. 20 Pool.(a) (1956-57 Harvest.)	No. 21 Pool.(a) (1957-58 Harvest.)	No. 22 Pool.(a) (1958-59 Harvest.)	No. 23 Pool.(b) (1959-60 Harvest.)
Paid to growers	98,223	68,800	47,911	117,336	86,433
Rail freight	12,456	7,761	4,926	13,687	12,789
Expenses	8,806	6,189	4,257	8,868	6,039
<i>Total Payments</i>	<i>119,485</i>	<i>82,750</i>	<i>57,094</i>	<i>139,891</i>	<i>105,261</i>
Value of sales delivered	(c) 118,475	(d) 84,464	(e) 56,808	(f) 133,598	(g) 99,207

(a) Complete. (b) Incomplete. (c) Subject to additional £1,010,000 withdrawn from Wheat Prices Stabilization Fund. (d) Includes £1,589,000 paid to Wheat Prices Stabilization Fund and £125,000 to Wheat Industry Research Fund. (e) Subject to additional £397,000 withdrawn from Wheat Prices Stabilization Fund and payment of £85,000 to Wheat Industry Research Fund. (f) Subject to additional £6,532,000 withdrawn from Wheat Prices Stabilization Fund and payment of £207,000 to Wheat Industry Research Fund. (g) Subject to additional £8,024,000 (of which the Commonwealth Government provided £3,022,000) withdrawn from the Wheat Prices Stabilization Fund and payment of £187,000 to Wheat Industry Research Fund.

NOTE.—Details of earlier pools will be found in previous issues of the Year Book.

(iii) *Advances to Growers.* Each year the size of the first advance to growers is announced by the Minister for Primary Industry before the commencement of the season. Additional payments are made as sufficient funds become available to the Board from sales realizations. Details of advances made to wheat growers in respect of the various pools are published in the Statistical Bulletin: *The Wheat Industry, Australia*, last issued in April, 1961.

(iv) *Stabilization Fund.* Particulars of the most recent legislative provisions for this fund are given in para. 3 (iv) on page 891.

In accordance with the provisions of the second Stabilization Plan, amounts of £9,160,000 and £1,589,000 were paid into the Stabilization Fund from the export charge on exports from the 1953-54 and 1956-57 crops. There were withdrawals from the Fund in respect of the years 1954-55, 1955-56 and 1957-58 amounting to £189,000, £1,010,000 and £397,000 respectively. The balance of the Fund including interest from its investment amounting to over £10 million was carried forward as the nucleus of the Fund for the third Stabilization Plan commencing with the 1958-59 season.

Under the third Stabilization Plan an amount of £6,532,000 (7.88d. per bushel) has been withdrawn from the Fund to raise export realizations from the 1958-59 harvest. The balance of the Fund with accrued interest, together amounting to £5,002,000, was withdrawn to raise export realizations from the 1959-60 harvest. In addition, an amount of £3,022,000 was contributed by the Commonwealth Government in accordance with the guarantee.

5. *International Wheat Agreements.*—Details of the first and second International Wheat Agreements operative from 1st August, 1949, to 31st July, 1953, and from 1st August, 1953, to 31st July, 1956, respectively, were published in Official Year Book No. 42 (see pp. 840-1) and previous issues.

A third International Wheat Agreement covering a period of three years from 1st August, 1956, to 31st July, 1959, came into force on 1st August, 1956. The 1956 Agreement was substantially the same in form as the 1949 and 1953 Agreements, although amendments were made to many of the more important provisions.

The annual quota of 395 million bushels determined by the 1953 International Wheat Agreement was reduced in the 1956 Agreement by almost a quarter to 303 million bushels. The quotas were varied slightly during the course of the Agreement, and in 1958–59 the total quota was 295.3 million bushels of which Australia's share was fixed at 29.5 million bushels.

Particulars of guaranteed sales and purchases by individual countries under the 1956 Agreement for 1958–59 and earlier years are shown in previous Year Books.

Following ratification by the required number of wheat exporting and importing countries, a fourth International Wheat Agreement came into force on 1st August, 1959. The Agreement covers the three year period from 1st August, 1959, to 31st July, 1962.

The new Agreement, negotiated at an international conference convened by the United Nations, continues the arrangements covered by previous Agreements, with some important variations. The Agreement seeks to obtain an element of stability in world wheat marketing by providing that a significant proportion of wheat entering international trade will be bought and sold at prices within a prescribed range. The member exporting countries compete to supply at prices within the agreed price range, which is from 190 cents (Canadian Currency) or about 17s. 6d. Australian to 150 cents or about 13s. 6d. a bushel. These prices are used in the following manner:—Maximum price is based on the price of Canada's No. 1 Northern Manitoba wheat in bulk in store at Fort William/Port Arthur, and the minimum price shall be each exporter's f.o.b. price equivalent to the c.i.f. price in the United Kingdom of the minimum price of Canada's No. 1 Northern Manitoba wheat in bulk in store Fort William/Port Arthur, using currently prevailing transportation costs and exchange rates.

Member importing countries have undertaken to buy each year from member exporting countries a stated percentage of their total commercial requirements at prices within the agreed range instead of a fixed quota as under previous Agreements. In the first year of the Agreement, ending 31st July, 1960, all member countries with one exception exceeded their stated percentages. Transactions between member importing and exporting countries totalled 555.7 million bushels, of which Australia's share was 79.1 million, equivalent to 14.2 per cent. In the final year of the third Agreement (Crop Year 1958–59), sales recorded totalled 191 million bushels of which Australia's share was 15.8 million (8.3 per cent). Total commercial purchases of wheat by importing, exporting and non-participating countries reported to the International Wheat Council were 633.8 million bushels of which Australia's share was 128.3 million (20.2 per cent.).

The new Agreement empowers the International Wheat Council to make an annual review of the world wheat situation, including the international implication of national policies in respect to wheat production, stocks and marketing, and the disposal of wheat surpluses on non-commercial terms.

Provision has also been made for a right of appeal against excessive discounts from the minimum price on the basis of differences in quality between the basic wheat—Canada's No. 1 Manitoba Northern Wheat—and the wheat supplied by the other member importing countries.

The provision in the previous Agreements by which the individual exporting countries had separate guaranteed quantities that they would call upon the member importing countries to buy at the minimum price has not been retained.

Member countries of the fourth International Wheat Agreement are:—

Exporters—Argentina, Australia, Canada, France, Italy, Mexico, Spain, Sweden and the United States of America.

Importers—Austria, Belgium and Luxembourg, Brazil, Costa Rica, Cuba, Dominican Republic, El Salvador, Federal Republic of Germany, Greece, Guatemala, Haiti, Honduras Republic, Iceland, India, Indonesia, Ireland, Israel, Japan, Korea, The Netherlands, New Zealand, Norway, Panama, Peru, The Philippines, Portugal, Federation of Rhodesia and Nyasaland, Saudi Arabia, Switzerland, Union of South Africa, United Arab Republic, United Kingdom, Vatican City, and Venezuela.

6. Wheat Farms.—(i) *Number.* Particulars of the number of farms growing 20 acres and upwards of wheat for grain during each of the years 1955–56 to 1959–60, are shown in the following table. It should be noted that a farm worked on the share system or as a partnership is included as one holding only.

NUMBER OF FARMS GROWING 20 ACRES AND UPWARDS OF WHEAT FOR GRAIN.

State.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
New South Wales	14,086	10,197	12,111	14,997	16,798
Victoria	9,714	7,674	8,856	9,074	10,561
Queensland	4,186	3,131	3,665	4,791	4,555
South Australia	8,571	7,852	7,515	7,774	7,869
Western Australia	7,962	7,943	7,957	8,060	8,444
Tasmania	78	45	95	104	141
Australian Capital Territory	9	4	10	19	24
Australia	44,606	36,846	40,209	44,819	48,392

(ii) *Size Classifications of Wheat Holdings.* See § 3, para. 4, page 887.

7. *Area, Production and Yield per Acre.*—(i) *Area.* Wheat is the principal crop grown in Australia, and its progress since 1860-61 has been almost continuous, although the area sown has been at a lower level during the past decade. Prominent features in its early development were the increase in population following the discovery of gold and the redistribution of labour after the surface gold had been won. The economic depression of 1893 interrupted its progress, but its subsequent recovery was assisted by the invention of mechanical appliances, the use of superphosphates as an aid to production, and the introduction of new and more suitable varieties of wheat for Australian conditions. The establishment of closer settlement schemes and the settling of returned soldiers and others on the land were additional factors in its expansion.

The area, production and yield per acre of wheat for grain in each State are shown below for the years 1955-56 to 1959-60 in comparison with the averages for the three-year periods ended 1938-39, 1948-49, and 1958-59:—

WHEAT FOR GRAIN : AREA, PRODUCTION AND YIELD PER ACRE.

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
AREA ('000 ACRES).								
Average for three years ended—								
1938-39	4,366	2,609	366	3,100	3,005	18	2	13,466
1948-49	4,519	3,241	439	2,319	2,685	7	4	13,214
1958-59	2,392	1,737	508	1,392	3,005	5	1	9,040
Year—								
1955-56	2,937	2,141	582	1,609	2,890	6	1	10,166
1956-57	1,742	1,565	360	1,438	2,765	4	..	7,874
1957-58	2,257	1,835	461	1,331	2,957	6	1	8,848
1958-59	3,178	1,810	704	1,408	3,292	6	1	10,399
1959-60	3,950	2,261	683	1,549	3,719	8	2	12,172
PRODUCTION ('000 BUSHEL). (a)								
Average for three years ended—								
1938-39	56,890	36,374	4,783	34,606	31,539	434	45	164,671
1948-49	58,537	48,332	8,569	28,856	31,517	138	78	176,027
1958-59	35,178	36,705	9,938	26,126	40,950	135	15	149,047
Year—								
1955-56	57,149	41,083	14,922	28,891	53,250	129	19	195,443
1956-57	28,490	35,282	7,061	31,432	32,100	89	1	134,455
1957-58	10,603	32,134	6,657	14,914	33,100	153	5	97,566
1958-59	66,441	42,697	16,097	32,032	57,650	164	40	215,121
1959-60	75,358	38,793	13,522	11,929	58,670	182	47	198,501

(a) 60 lb. per bushel.

WHEAT FOR GRAIN: AREA, PRODUCTION AND YIELD PER ACRE—*continued.*

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
YIELD PER ACRE (BUSHELS). (a)								
Average for three years ended—								
1938-39	13.0	13.9	13.1	11.2	10.5	24.1	22.5	12.2
1948-49	13.0	14.9	19.5	12.4	11.7	19.7	19.5	13.3
1958-59	14.7	21.1	19.6	18.8	13.6	27.0	15.0	16.5
Year—								
1955-56	19.5	19.2	25.7	18.0	18.4	20.7	25.5	19.2
1956-57	16.4	22.5	19.6	21.9	11.6	22.7	11.1	17.1
1957-58	4.7	17.5	14.5	11.2	11.2	26.1	8.9	11.0
1958-59	20.9	23.6	22.9	22.8	17.5	25.4	28.1	20.7
1959-60	19.1	17.2	19.8	7.7	15.8	22.0	26.8	16.3

(a) 60 lb. per bushel.

A graph showing the area sown to wheat for grain in Australia since 1900-01 appears on page 898 while a map showing the distribution of areas growing wheat for grain throughout Australia in 1954-55 appeared on page 833 of Official Year Book No. 43. Similar maps showing the distribution of wheat areas in 1924-25, 1938-39 and 1947-48 appeared respectively in Official Year Books No. 22, page 695, No. 34, page 451 and No. 39, pages 977-8.

(ii) *Production.* Apart from the variations in the area sown, the size of the wheat harvest in Australia is largely determined by the nature of the season, resulting in considerable year-to-year fluctuations in production.

The main wheat-producing States of Australia are New South Wales, Victoria, South Australia and Western Australia. Queensland production normally approaches local demands, but Tasmania imports wheat from the mainland to satisfy its needs, though it exports flour made from local wheat which is particularly suitable for biscuits. Normally the production of wheat greatly exceeds Australian requirements, and from half to two-thirds of the crop is exported.

Following a near record wheat harvest of 215.1 million bushels in 1958-59, production was 8 per cent. less in 1959-60.

(iii) *Yield per Acre.* Short-term variations in yield per acre are due chiefly to seasonal influences. The best yields per acre for single seasons since 1901 were obtained in 1920-21, 16.1 bushels; in 1942-43, 16.8 bushels; in 1949-50, 17.8 bushels; in 1952-53, 19.1 bushels; in 1953-54, 18.4 bushels; in 1955-56, 19.2 bushels; in 1958-59, 20.7 bushels (a record); and in 1959-60, 16.3 bushels.

(iv) *Decennial Averages, 1861-70 to 1951-60.* The following table shows the average area, production and yield per acre for decennial periods since 1861.

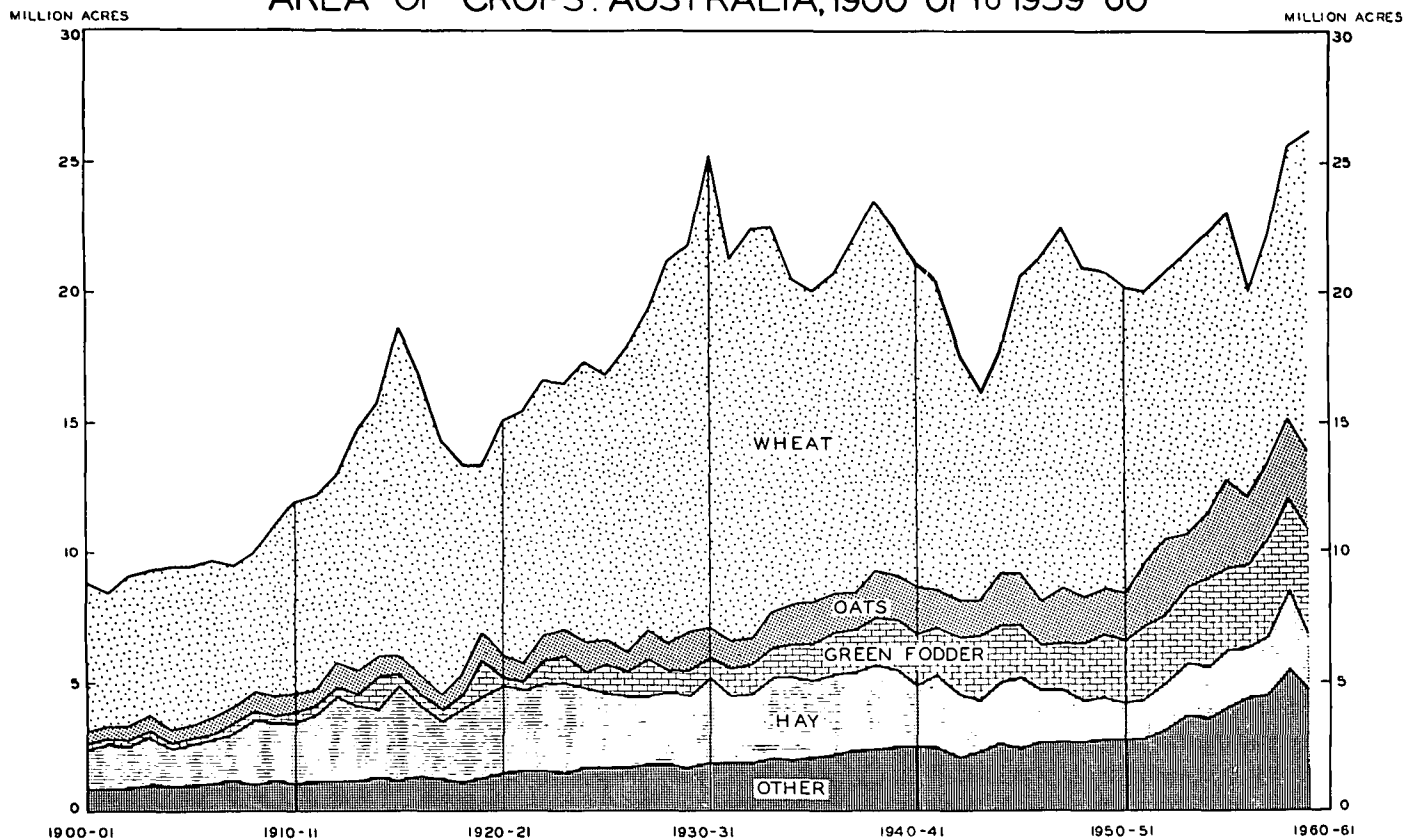
WHEAT FOR GRAIN: AVERAGE AREA AND PRODUCTION, AUSTRALIA.

Period.	Area.	Production.	Yield per Acre.
	'000 Acres.	'000 Bushels.	Bushels.
1861-70	831	10,622	12.8
1871-80	1,646	17,711	10.8
1881-90	3,258	26,992	8.3
1891-1900	4,087	29,934	7.3
1901-10	5,711	56,058	9.8
1911-20	8,928	95,480	10.7
1921-30	11,291	135,400	12.0
1931-40	14,176	177,758	12.5
1941-50	11,358	145,599	12.8
1951-60	10,164	173,622	17.1

It should be noted that with improved farming methods, including the proper tillage of the soil, rotation of crops, the growing of suitable varieties and the application of fertilizers, the average yield per acre has shown a continued improvement in each decade since 1901.

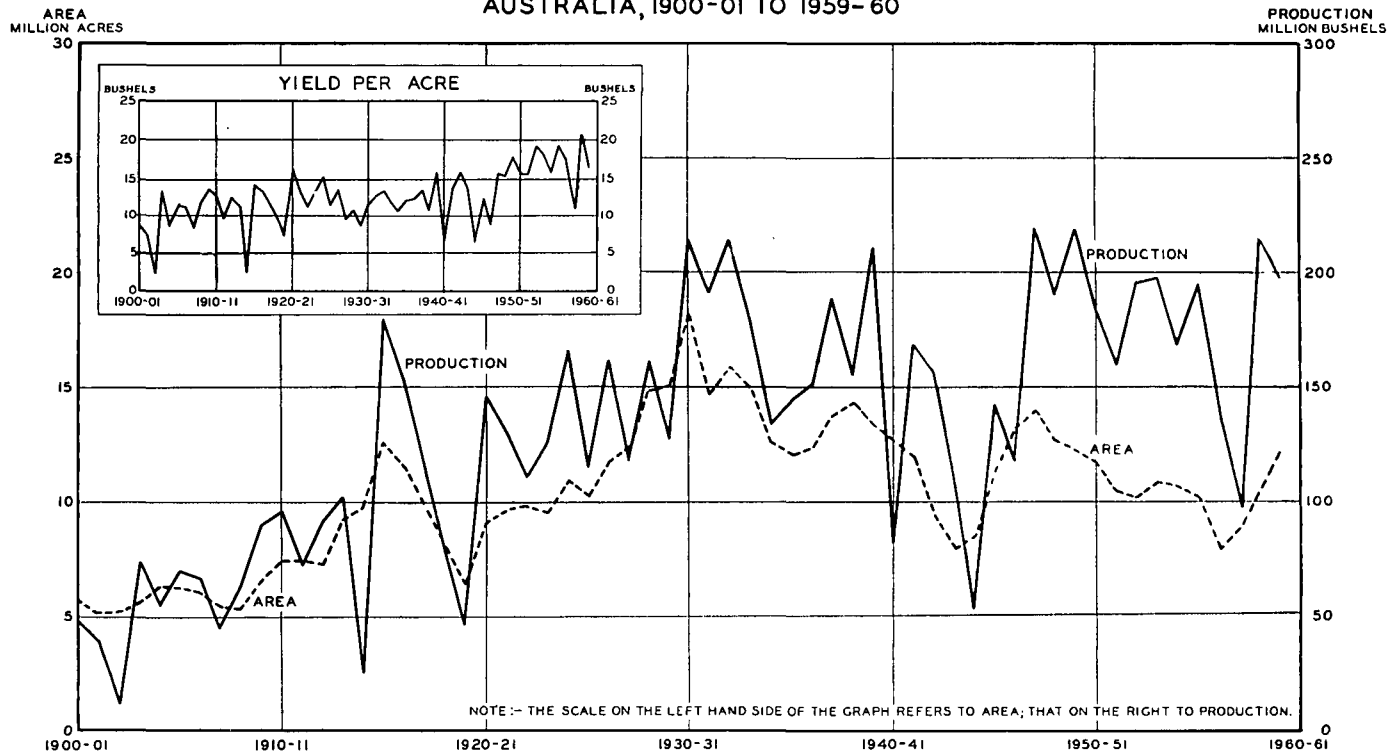
8. *Varieties of Wheat Sown.*—(i) *General.* The breeding of wheat suitable to local conditions has long been established in Australia. Farrer (1845-1905) did invaluable work in pioneering this field and the results of his labour and the continued efforts of those who have followed him have proved of immense benefit to the industry. Their efforts

AREA OF CROPS: AUSTRALIA, 1900-01 TO 1959-60



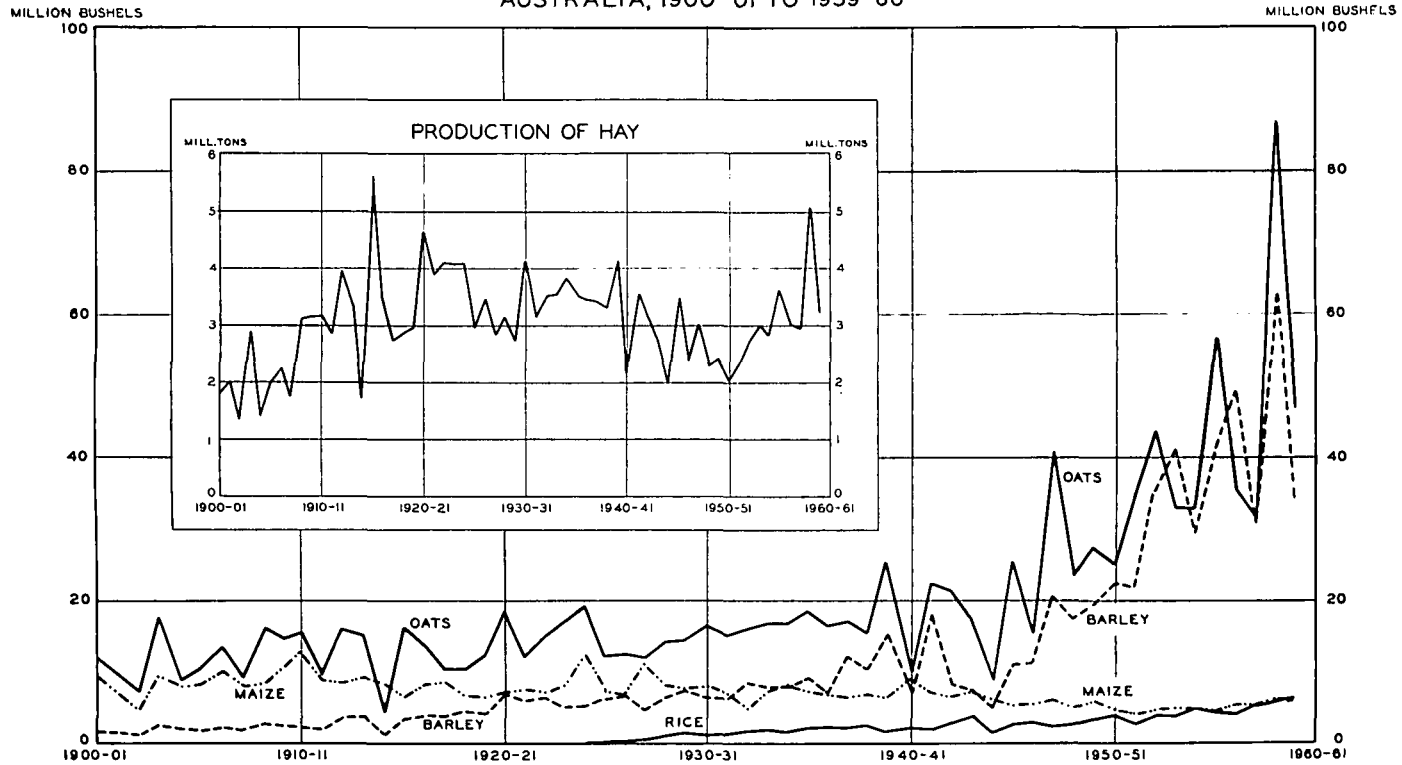
WHEAT (GRAIN): AREA, PRODUCTION AND YIELD PER ACRE

AUSTRALIA, 1900-01 TO 1959-60



PRODUCTION OF OATS, BARLEY, MAIZE, RICE AND HAY

AUSTRALIA, 1900-01 TO 1959-60



have resulted in the development of disease-resistant varieties, better average yields, and a greater uniformity of sample, with which have accrued certain marketing advantages, as well as an improvement in the quality of wheat grown. More than 1,000 different varieties of Australian wheats have been catalogued by the Commonwealth Scientific and Industrial Research Organization, but the number of principal varieties grown during each season is restricted to about 45.

(ii) *States.* 1959-60. The principal varieties of wheat sown and the percentage of each to the total area sown in the five main producing States during 1959-60 were as follows:—New South Wales, Glenwari (21.1), Bencubbin (12.4), Gabo (12.1); Victoria, Insignia (42.6), Pinnacle (25.0), Olympic (13.7); Queensland, Festival (39.3), Spica (23.6); South Australia, Insignia (22.1), Gabo (22.0), Dirk (15.7); Western Australia, Gabo (36.2), Bungulla (13.1), Insignia (12.1). A detailed table of wheat varieties sown in these five States appears in the annual bulletin *Primary Industries—Part I.—Rural Industries*.

9. *F.A.Q. Standard of Wheat.*—Until the 1957-58 season, the Chambers of Commerce in each of the four main wheat-producing States determined the "f.a.q." (fair average quality) standard for each season's crop. This standard is used as a basis for sales of each crop and it varies from year to year and from State to State.

Samples of wheat are obtained each year by the Chambers of Commerce from the different wheat districts and mixed to give a representative sample of the whole crop. From this representative sample the f.a.q. weight is determined by the use of the Schopper 1-litre scale chondrometer. Commencing with the 1958-59 season, the f.a.q. standard has been determined by State committees comprising representatives of the Australian Wheat Board, the silo authorities, the growers and the State Departments of Agriculture. "F.a.q." is an Australian term, and the method of selling differs from that of other countries which sell according to sample, or (as in Canada) according to grades which are fixed and do not vary from year to year.

The f.a.q. weight of a bushel of wheat in each of the four main wheat-producing States for the 1960-61 season's crop was as follows:—New South Wales, North, 64 lb., South and West, 62 lb.; Victoria, 64½ lb.; South Australia, semi-hard, 64 lb., soft, 64½ lb.; and Western Australia, 64 lb.

10. *Price of Wheat.*—(i) *Home Consumption.* The price charged by the Australian Wheat Board for wheat sold to millers for gristing into flour for consumption in Australia and for wheat sold as stock feed was as follows:—Year ended 30th November, 1955, 14s. 1½d.; 1956, 13s. 5½d.; 1957, 13s. 9½d.; 1958, 14s. 4d.; 1959, 14s. 8d.; 1960, 15s. 0d.; 1961, 15s. 4d. These prices include an amount used to meet freight charges incurred on wheat shipped to Tasmania (1½d. from 1955 to 1957; 2d. in subsequent years). The figure quoted for 1958 does not apply to New South Wales and Queensland where, because of the necessity of meeting the extra cost of importing wheat from Canada and Western Australia, the prices, during the greater part of the year, were 18s. 4½d. and 16s. 9½d. respectively.

(ii) *Export Wheat Prices—Australian Wheat Board's Basic Selling Price.* The monthly average of the Wheat Board's basic export selling prices for f.a.q. bulk wheat f.o.b. basis was 13s. 5½d. for the season ended 31st July, 1957, 14s. 6d. for the season ended 31st July, 1958, 13s. 10d. for the season ended 31st July, 1959, and 13s. 4d. for the season ended 31st July, 1960, both for wheat sold under the International Wheat Agreement and for "free" wheat sold on the open market. Actual selling prices have been lower than the basic prices in some cases, particularly where other exporting countries enjoy a geographical freight advantage.

The maximum and minimum prices fixed under the 1956 International Wheat Agreement are expressed in terms of "Canadian currency per bushel, at the parity of the Canadian dollar determined for the purposes of the International Monetary Fund for No. 1 Manitoba Northern wheat in bulk in store Fort William—Port Arthur." The maximum price was set at 200 cents a bushel and the minimum at 150 cents for f.a.q. wheat. Under the current 1959 Agreement operative from 1st August, 1959 (see paragraph 5, p. 894), the agreed price range is between 190 cents and 150 cents. Directly converted into Australian currency these limits are approximately 17s. 6d. and 13s. 6d. a bushel respectively.

Details of export wheat prices in previous years, including those received for wheat sold under the terms of the 1949-1953 International Wheat Agreement, are given in Official Year Book No. 40, pages 849-50, and Statistical Bulletin: *The Wheat Industry, Australia*, No. 95 of April, 1959, and in previous issues of these publications.

11. *Value of the Wheat Crop.*—The estimated gross value of the wheat crop in each State and in Australia during the season 1959-60 and the value per acre are shown below.

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WHEAT FOR GRAIN: VALUE OF CROPS (a), 1959-60.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
Aggregate value £'000	51,975	26,743	9,461	8,248	41,181	125	29	137,762
Value per Acre £	13.2	11.8	13.8	5.3	11.1	15.1	16.6	11.3

(a) Gross value of total crop, including wheat used for seed and for stock feed on farms. Also includes payment of £3,022,000 by the Commonwealth Government.

12. **Production and Disposal of Wheat in Australia.**—In the following table, details are given of the production of wheat and its disposal during each of the years ended 30th November, 1956 to 1960. The particulars for local consumption are based on sales made by the Australian Wheat Board, whilst those relating to exports represent actual shipments. (For particulars of production and yield from 1900-01 see graph, p. 898.)

WHEAT : PRODUCTION AND DISPOSAL, AUSTRALIA.
(Million Bushels.)

Particulars.	Year ended 30th November—				
	1956.	1957.	1958.	1959.	1960.
Opening stocks (including flour as wheat)	95.0	84.2	41.5	16.5	65.4
Production	195.4	134.5	97.6	215.1	198.5
Imports .. .. .	..	..	1.5	..	..
<i>Total Available Supplies</i> ..	<i>290.4</i>	<i>218.7</i>	<i>140.6</i>	<i>231.6</i>	<i>263.9</i>
Exports—					
Wheat	93.7	69.3	33.6	71.7	98.1
Flour as wheat(a)	36.8	36.6	17.5	26.8	26.7
Breakfast foods and other products(b) ..	1.4	1.6	0.6	0.4	0.6
Local Consumption—					
Flour as wheat	39.8	41.2	39.2	40.2	41.3
Stock feed	15.3	19.6	15.0	11.6	14.7
Seed	7.9	9.1	11.1	12.0	13.0
Breakfast foods and other products(b) ..	1.7	1.9	1.9	1.9	1.9
Balance retained on farm (excluding seed)	6.7	5.3	6.1	3.7	6.2
Closing stocks (including flour as wheat) ..	84.2	41.5	16.5	65.4	60.7
<i>Total Disposals</i>	<i>287.5</i>	<i>226.1</i>	<i>141.5</i>	<i>233.7</i>	<i>263.2</i>
Excess (+) or Deficiency (–) of Disposals in respect of Available Supplies(c) ..	–2.9	+7.4	+0.9	+2.1	–0.7

(a) Includes wheatmeal and sharps. (b) In terms of wheat. (c) Includes allowance for unrecorded movements in stocks, gain or loss in out-turn, etc.

13. **Imports of Wheat.**—Owing to drought conditions in 1957-58, wheat supplies, particularly in New South Wales, were insufficient for local requirements. As a result, 1,136,000 bushels were imported from Canada during March, April and May, 1958, and a further 349,000 bushels in July, 1958. No wheat has been imported since this period.

Wheat and flour have been imported in substantial quantities on only two previous occasions since 1900; in 1902-3 the wheat harvest was only 12,378,000 bushels, and wheat and flour representing 12,468,000 bushels of wheat were imported, while an equivalent of 7,279,000 bushels was imported in 1914-15 to supplement the yield of 25 million bushels produced in that season.

14. **Exports of Wheat and Flour.**—(NOTE: Statistics in this paragraph relate to years ended 30th June.) (i) *Quantities.* The following table shows particulars of the exports of wheat and flour and total of both, in terms of wheat, for each of the years 1955-56 to 1959-60. For the sake of convenience, flour has been expressed at its equivalent in wheat, 1 ton of flour being taken as equal to 46.3 bushels of grain.

WHEAT AND FLOUR : EXPORTS FROM AUSTRALIA.

Year.			Quantity.				Value.		
			Wheat.	Flour.		Total as Wheat.	Wheat.	Flour.	Total.
				As Flour. (a)	As Wheat. (b)				
			'000 bushels.	Tons. (2,000 lb.)	'000 bushels.	'000 bushels.	£'000.	£'000.	£'000.
1955-56	..	..	71,041	684,229	31,680	102,721	46,456	20,273	66,729
1956-57	..	..	91,107	766,655	35,496	126,603	60,058	22,234	82,292
1957-58	..	..	39,575	479,985	22,223	61,798	28,494	15,059	43,553
1958-59	..	..	54,631	467,699	21,654	76,285	38,381	14,001	52,382
1959-60	..	..	91,252	558,063	25,838	117,090	61,680	15,811	77,491

(a) White flour, sharps and wheatmeal for baking.
to be equivalent to 46.3 bushels of wheat.

(b) One ton (2,000 lb.) of flour is taken

(ii) *Destination.* (a) *Wheat.* The following table shows the exports of wheat to various countries for each of the five years ended 1959-60.

WHEAT: EXPORTS FROM AUSTRALIA.

('000 Bushels.)

Country to which Exported.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
United Kingdom	20,442	26,699	9,792	21,225	20,985
India	5,562	23,274	434	1,317	11,706
New Zealand	9,067	10,915	9,680	8,229	7,904
Pakistan .. ..	..	6,195	4,720	720	3,875
Other Commonwealth Countries ..	6,235	5,727	6,843	11,245	11,027
Japan	11,261	3,427	6,762	7,568	13,909
Germany, Federal Republic of ..	8,189	7,950	..	1,754	4,231
Other Foreign Countries	10,285	6,920	1,344	2,573	17,615
Total	71,041	91,107	39,575	54,631	91,252

(b) *Flour.* The following table shows the exports of flour to various countries for each of the five years ended 1959-60. The figures relate to exports of white flour, sharps and wheatmeal for baking.

FLOUR: EXPORTS FROM AUSTRALIA.

(Tons of 2,000 lb.)

Country to which Exported.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
United Kingdom	67,136	80,735	43,156	45,837	46,255
Ceylon	115,899	181,137	51,613	61,382	142,339
Malaya, Federation of	81,740	71,963	70,299	92,427	112,417
Mauritius	12,659	27,660	17,411	20,362	17,686
Singapore	54,707	47,243	37,590	40,735	36,658
Other Commonwealth Countries ..	86,238	102,189	94,785	102,996	103,956
Indonesia	178,098	115,660	62,897	37,856	32,925
Sudan	14,415	28,762	11,258	..	..
Other Foreign Countries	73,337	111,306	90,976	66,104	65,827
Total	684,229	766,655	479,985	467,699	558,063

15. **Stocks of Wheat and Flour.**—Stocks of wheat (including flour in terms of wheat) held by each State at 30th November for the years 1956 to 1960 are shown in the following table. These data relate to stocks held at mills, sidings, ports and depots as recorded by the Australian Wheat Board.

**WHEAT (INCLUDING FLOUR IN TERMS OF WHEAT): STOCKS (a) AT
30th NOVEMBER.(b)**

(*000 Bushels.)

30th November—	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
1956	21,365	22,821	1,973	15,223	22,534	265	84,181
1957	8,982	13,304	203	13,732	5,056	215	41,492
1958	4,420	6,172	116	3,262	2,260	222	16,452
1959	19,934	16,390	987	5,950	21,657	447	65,365
1960	19,878	16,639	451	2,203	20,995	535	60,701

(a) Held by the Australian Wheat Board at mills, sidings, ports and depots.
flour is taken as equivalent to 46.3 bushels of wheat.

(b) One ton of

16. **Bulk Handling and Storage of Wheat in Australia.**—(i) *Description and Development of the Bulk Handling System.* A detailed description of the bulk handling system, including its advantages and disadvantages compared with other methods of handling, appears on pages 954–8 of Official Year Book No. 39.

New South Wales, Victoria and Western Australia have operated bulk handling systems for a number of years, and, in more recent years, other States have also introduced bulk systems.

(ii) *Bulk Handling and Storage in the States.* Particulars of the operation of the bulk handling and storage systems and projected extensions in the States concerned are set out below:—

(a) *New South Wales.* Bulk handling facilities are operated by the Grain Elevators Board of New South Wales. The capacity of storages in the country for the 1960–61 season totalled 61,740,000 bushels and comprised 182 elevators (26,290,000 bushels), 13 horizontal type concrete and steel storages (3,230,000 bushels), 4 sub-terminals (16,500,000 bushels), 69 bulkheads (7,020,000 bushels) and 12 bulk depots (8,700,000 bushels). In addition, port terminal facilities provided storage for 4,200,000 bushels at Newcastle and 7,500,000 bushels at Sydney, making a total capacity of 73,440,000 bushels for the State.

(b) *Victoria.* The Victorian Grain Elevators Board operates 201 elevators with a storage capacity of 28,457,000 bushels and a terminal elevator at Geelong with a capacity of 4,250,000 bushels. Storages for 18,000,000 bushels, adjacent to the permanent terminal, have been constructed at Geelong.

Temporary measures for extending bulk handling facilities have been adopted and sub-terminals constructed or acquired at Dunolly, Murtoa and Warracknabeal with a capacity of 22,750,000 bushels. Temporary bulkheads have also been used and in the 1960–61 season there were 28 available for use with a total capacity of 2,364,000 bushels.

(c) *Queensland.* Bulk storages in this State are controlled and operated by the State Wheat Board. The capacity in the country for the 1960–61 season totalled 5,518,000 bushels. This total is composed of 12 silos (3,250,000 bushels) and 18 bulkheads (2,268,000 bushels).

The terminal bulk storage at Pinkenba commenced receiving wheat in July, 1959, with a storage capacity of 1,300,000 bushels.

(d) *South Australia.* Since the formation of the South Australian Co-operative Bulk Handling Ltd. in 1955, steady progress has been maintained in the expansion of the system.

The present capacity of bulk storages is 14,290,000 bushels; comprising 1,030,000 bushels at Ardrossan; 1,510,000 at Wallaroo; 1,250,000 at Port Lincoln; and 10,500,000 in country areas.

For the 1960-61 season, wheat was received in bulk at 30 installations in country areas in addition to the terminals at Ardrossan, Wallaroo and Port Lincoln.

For the 1961-62 season, the completion of a further seven silos will increase the capacity by 1,990,000 bushels, which will give the South Australian Co-operative Bulk Handling Ltd. capacity to handle 16,280,000 bushels of wheat in bulk, including a 750,000 bushel terminal at Thevenard.

(e) *Western Australia.* The bulk handling system is operated by Co-operative Bulk Handling Ltd., which is a company controlled by growers. In 1960-61, there were 292 sidings equipped with bulk handling facilities and the whole of the marketable harvest was received in bulk.

The system of storage at country stations in Western Australia comprises fixed installations of galvanized iron bins and iron and timber horizontal bulkheads. In addition, a type of temporary roofed bulkhead consisting of timber and iron is used. This latter type of storage can be transferred to suit operational requirements, and therefore lends flexibility to the system. Terminal installations comprise concrete silos and timber and iron horizontal bulkheads, with the exception of one port which is equipped with iron silos instead of concrete. Plans are in hand to increase the number of vertical concrete cell type storages at the main ports.

The total storage capacity for 1960-61 season was 104,517,000 bushels, comprising 78,867,000 bushels in the country and 25,650,000 bushels at ports, including 3,200,000 bushel capacity scheduled for completion during 1961.

(f) *Tasmania.* In order to meet the change to bulk handling of wheat in the mainland exporting States, the Tasmanian Government has constructed grain elevators at Hobart, Launceston and Devonport, each with a capacity of 300,000 bushels, for storage of bulk wheat shipments from the mainland.

17. *World Area and Production of Wheat.*—The figures in the following table of the world area and production of wheat by principal countries and by continents have been compiled from the statistics published by the Food and Agriculture Organization of the United Nations. The harvests shown for countries in the Northern Hemisphere are those reaped during the period March to October whilst those for the Southern Hemisphere cover the period November to February following.

WHEAT: AREA, PRODUCTION AND YIELD PER ACRE IN VARIOUS COUNTRIES.

Continent and Country.	Area.(a)			Production.			Yield per Acre.		
	1957.	1958.	1959. (b)	1957.	1958.	1959. (b)	1957.	1958.	1959. (b)
	'000 acres.	'000 acres.	'000 acres.	'000 bushels.	'000 bushels.	'000 bushels.	bus.	bus.	bus.
<i>North America—</i>									
Canada ..	21,117	20,880	23,046	385,508	383,858	427,015	18.3	18.4	18.5
United States ..	43,806	53,360	52,980	950,662	1,509,448	1,164,976	21.7	28.3	22.0
<i>Total(c)</i> ..	67,380	76,391	78,341	1,388,000	1,944,937	1,642,500	20.6	25.5	21.0

NOTE.—See next page for footnotes.

WHEAT: AREA, PRODUCTION AND YIELD PER ACRE IN VARIOUS COUNTRIES—continued.

Continent and Country.	Area.(a)			Production.			Yield per Acre.		
	1957.	1958.	1959. (b)	1957.	1958.	1959. (b)	1957.	1958.	1959. (b)
	'000 acres.	'000 acres.	'000 acres.	'000 bushels.	'000 bushels.	'000 bushels.	bus.	bus.	bus.
<i>Europe—</i>									
France ..	11,534	11,390	10,960	407,200	364,300	438,030	35.3	32.0	40.0
Italy ..	12,375	12,190	11,518	310,000	372,400	321,210	25.1	30.5	27.9
Spain ..	10,820	10,810	10,812	180,000	172,630	176,210	16.6	16.0	16.3
<i>Total(c)</i> ..	73,440	73,400	72,515	1,950,000	1,932,800	2,146,400	26.6	26.3	29.6
<i>U.S.S.R.</i> ..	170,000	165,000	155,500	1,800,000	2,905,200	2,621,900	10.6	17.6	16.9
<i>Africa—Total(c)</i> ..	17,520	18,300	18,295	185,000	204,100	194,700	10.6	11.2	10.6
<i>Asia—</i>									
China ..	(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)
India ..	33,580	29,300	30,940	347,700	298,400	373,740	10.4	10.2	12.1
Pakistan ..	11,807	11,380	12,150	142,000	136,640	148,590	12.0	12.0	12.2
Turkey ..	17,878	18,690	18,930	250,000	329,010	303,030	14.0	17.6	16.0
<i>Total(c)</i> ..	146,620	147,200	150,900	1,910,000	2,162,400	2,340,700	13.1	14.7	15.5
<i>South America—</i>									
Argentina ..	10,858	12,940	10,810	213,500	254,980	221,460	19.7	19.7	20.5
<i>Total(c)</i> ..	18,740	21,400	17,800	320,000	351,300	314,500	17.1	16.4	17.7
<i>Oceania—</i>									
Australia ..	8,848	10,399	12,172	97,566	215,121	198,501	11.0	20.7	16.3
<i>Total(c)</i> ..	8,930	10,520	12,050	101,000	228,400	210,200	11.3	21.7	17.4
<i>World Total(c)</i> ..	502,630	511,600	505,400	7,654,000	9,728,500	9,470,500	15.2	19.0	18.7

(a) Figures for countries other than Australia refer to harvested areas as far as possible. For Australia, area sown is shown. (b) Preliminary. (c) Totals (estimates) include allowances for any missing data for countries shown and for producing countries not shown. (d) Not available. See footnote (c).

18. Exports—Principal Countries.—The following table shows the quantities of wheat exported from the chief exporting countries for the years 1957 to 1959, based on statistics recently published by the Food and Agriculture Organization of the United Nations.

While Australia's production of wheat averages less than 3 per cent. of the world's total, its exports account for a much higher proportion of the total quantities shipped. In 1959, Australia's share of world wheat exports amounted to 8.2 per cent.

WHEAT(a): PRINCIPAL EXPORTING COUNTRIES.

Exporting Country.	1957.		1958.		1959.	
	Quantity.	Proportion of World Total.	Quantity.	Proportion of World Total.	Quantity.	Proportion of World Total.
	million bushels.	%	million bushels.	%	million bushels.	%
United States of America ..	475.9	36.4	412.4	34.9	454.4	36.3
Canada	267.0	20.4	311.6	26.3	302.1	24.1
Australia	97.3	7.4	52.7	4.5	102.4	8.2
Argentina	98.5	7.5	79.1	6.7	89.0	7.1
France	50.3	3.8	68.2	5.8	45.4	3.6
All other	320.1	24.5	259.0	21.8	258.7	20.7
<i>Total</i>	<i>1,309.1</i>	<i>100.0</i>	<i>1,183.0</i>	<i>100.0</i>	<i>1,252.0</i>	<i>100.0</i>
World Production (mill. bus.) ..	7,654		9,729		9,471	
Proportion of Australia's Production to World Production	% 1.3		% 2.2		% 2.1	

(a) Includes flour expressed in terms of wheat.

19. Imports—Principal Countries.—The principal importers of wheat, together with quantities imported, for the periods indicated, are shown in the following table:—

WHEAT(a): PRINCIPAL IMPORTING COUNTRIES.

Importing Country.	1957.		1958.		1959.	
	Quantity.	Proportion of World Total.	Quantity.	Proportion of World Total.	Quantity.	Proportion of World Total.
	million bushels.	%	million bushels.	%	million bushels.	%
United Kingdom ..	186.7	14.6	188.0	16.5	179.2	14.3
India and Pakistan ..	131.7	10.3	127.7	11.2	151.8	12.1
Japan	85.2	6.7	86.8	7.6	92.2	7.3
Germany, Federal Republic of ..	106.6	8.3	83.3	7.3	90.8	7.2
Brazil	54.2	4.2	57.0	5.0	67.1	5.3
United Arab Republic ..	30.9	2.4	43.0	3.8	50.7	4.0
Poland	65.9	5.2	24.5	2.2	41.2	3.8
Netherlands	34.9	2.7	38.9	3.4	37.0	3.3
Yugoslavia	40.5	3.2	27.1	2.4	48.2	2.9
All other	542.0	42.4	460.7	40.6	498.4	39.8
<i>Total</i>	<i>1,278.6</i>	<i>100.0</i>	<i>1,137.0</i>	<i>100.0</i>	<i>1,256.6</i>	<i>100.0</i>

(a) Includes flour expressed in terms of wheat.

§ 5. Oats.

1. **Area, Production and Yield per Acre.**—Oats is usually next in importance to wheat among the grain crops cultivated in Australia, but while wheat grown for grain in 1959–60 accounted for 47 per cent., oats grown for grain represented only 12 per cent. of the area of all crops. The area, production and yield per acre of oats in each State are shown below for the years 1955–56 to 1959–60 in comparison with the averages for the three year periods ended 1938–39, 1948–49, and 1958–59.

OATS FOR GRAIN : AREA, PRODUCTION AND YIELD PER ACRE.

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Australia.
AREA ('000 ACRES).								
Average for three years ended—								
1938–39 ..	297	478	8	338	425	26	(a)	1,572
1948–49 ..	515	548	21	282	484	17	1	1,868
1958–59 ..	756	735	29	445	1,178	20	(a)	3,163
Year—								
1955–56 ..	902	871	36	425	1,091	29	(a)	3,354
1956–57 ..	420	613	28	427	1,051	17	(a)	2,556
1957–58 ..	716	622	19	427	1,154	21	(a)	2,959
1958–59 ..	1,130	971	39	481	1,330	22	1	3,974
1959–60 ..	567	673	22	506	1,240	22	(a)	3,030
PRODUCTION ('000 BUSHEL). (b)								
Average for three years ended—								
1938–39 ..	4,065	4,781	65	2,575	4,159	810	6	16,461
1948–49 ..	7,166	9,757	324	3,606	5,355	406	7	26,621
1958–59 ..	12,619	14,140	547	7,911	15,606	409	10	51,242
Year—								
1955–56 ..	16,537	14,858	743	7,280	16,516	548	5	56,487
1956–57 ..	6,274	9,555	553	8,318	10,441	253	2	35,396
1957–58 ..	3,944	9,528	256	3,423	13,793	482	(c)	31,426
1958–59 ..	27,638	23,339	832	11,992	22,585	491	28	86,905
1959–60 ..	11,125	12,701	394	2,504	19,599	512	6	46,841
YIELD PER ACRE (BUSHEL). (b)								
Average for three years ended—								
1938–39 ..	13.7	10.0	8.1	7.6	9.8	3.1	24.3	10.5
1948–49 ..	13.9	17.8	15.4	12.8	11.1	2.4	11.8	14.3
1958–59 ..	16.7	19.2	18.9	17.8	13.3	20.5	22.5	16.2
Year—								
1955–56 ..	18.3	17.1	20.8	17.1	15.1	19.1	17.1	16.8
1956–57 ..	14.9	15.6	20.1	19.5	9.9	15.3	12.5	13.8
1957–58 ..	5.5	15.3	13.4	8.0	12.0	23.3	7.4	10.6
1958–59 ..	24.5	24.0	21.3	24.9	17.0	22.1	26.6	21.9
1959–60 ..	19.6	18.9	18.4	5.0	15.8	23.2	24.8	15.5

(a) Less than 500 acres.

(b) 40 lb. per bushel.

(c) Less than 500 bushels.

Graphs showing the area sown to oats, and production of oats appear on pages 897 and 899 respectively.

In 1958–59, extremely favourable seasonal conditions for all cereal crops were experienced, and production of oats reached an all-time high at 86,905,000 bushels, the previous record being 56,487,000 bushels in 1955–56. Production reverted to a more normal level in 1959–60, when 46,841,000 bushels were harvested.

The average yield of 15.5 bushels an acre in 1959–60 was 29 per cent. below the yield of 21.9 bushels an acre in 1958–59, the highest yield in recent years. The previous highest yield in recent years was 19.3 bushels an acre in the 1947–48 season which was the highest since 1920–21. The yield per acre recorded in the abnormally dry season 1944–45, 4.4 bushels, was the lowest ever recorded for Australia.

2. **Price of Oats.**—The average wholesale price in the Melbourne market for oats of good milling quality was 7s. 9d. a bushel in 1959–60. This represents an increase of approximately 12 per cent. on the price in 1958–59 (6s. 11d.).

3. **Value of Oat Crop.**—The estimated gross value of the oat crop in each State for the 1959–60 season and the value per acre were as follows:—

OATS : VALUE OF CROP, 1959–60.

Particulars.		N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
Aggregate value	£'000	4,079	4,797	197	1,061	7,965	295	2	18,396
Value per acre..	£	7.2	7.1	9.2	2.1	6.4	13.4	8.7	6.1

4. **Exports.**—The production of oats in Australia is sufficient to allow for a regular export trade. The quantities and values of oats exported from Australia during the years 1955–56 to 1959–60 are shown hereunder:—

OATS : EXPORTS, AUSTRALIA.

Particulars.		1955–56.	1956–57.	1957–58.	1958–59.	1959–60.
Quantity ..	.. '000 bus.	9,608	8,165	2,296	17,557	11,969
Value ..	.. £'000	3,578	2,972	1,064	6,512	5,031

In 1959–60, the principal countries of destination were the Federal Republic of Germany (8,155,400 bushels), the Netherlands (1,719,100 bushels), Italy (1,028,200 bushels) and the United Kingdom (579,000 bushels). Imports of oats into Australia are not recorded separately.

5. **Oatmeal, etc.**—In 1959–60, the production of oatmeal was 15,672 tons for porridge and 10,092 tons for other purposes. This was equivalent to about 2,900,000 bushels of oats.

6. **World Production.**—The world's production of oats for the year 1959, according to figures released by the United States Department of Agriculture, amounted to 3,720 million bushels, harvested from 111.2 million acres, representing an average yield of 33.5 bushels per acre. This compared with an estimated production in the previous year of 4,260 million bushels from an area of 116.7 million acres and an average yield of 36.5 bushels an acre.

§ 6. Maize.

1. **States Growing Maize.**—Maize is grown for grain chiefly in Queensland and New South Wales, the area so cropped in these States during the 1959–60 season being 181,541 acres, or 98 per cent. of the total for Australia. In all States except South Australia, the crop is grown to some extent for green fodder, particularly in connexion with the dairying industry.

2. **Area, Production and Yield per Acre.**—Although maize for grain is grown extensively in other countries, the area sown to maize for grain in Australia has averaged only 179,507 acres during the five years ended 1959–60. The area in 1959–60 was 184,928 acres, a slight increase on the previous year, but considerably less than the comparatively large areas of 414,914 and 400,544 acres sown in 1910–11 and 1927–28 respectively.

There has been a considerable increase in recent years in the growing of maize from hybrid strains of seed. Varieties have been developed which are capable of producing yields per acre considerably in excess of the older open pollinated types. The expansion in areas sown to hybrid maize has led to a parallel development in the specialized industry of growing hybrid strains for seed.

The area, production and yield per acre of maize for grain in each State for the years 1955-56 to 1959-60 compared with the averages for the three three-year periods ended 1938-39, 1948-49 and 1958-59 are given in the following table. Separate details for hybrid and other varieties are shown for New South Wales, Victoria and Queensland for 1959-60.

MAIZE FOR GRAIN : AREA, PRODUCTION AND YIELD PER ACRE.

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
AREA (ACRES).								
Average for three years ended—								
1938-39 ..	121,178	19,826	179,641	20	16	..	6	320,687
1948-49 ..	91,612	7,511	122,263	1	87	6	1	221,481
1958-59 ..	57,662	3,629	120,417	(a)	13	1	2	181,724
Year—								
1955-56 ..	55,678	3,535	108,146	6	6	65	2	b 167,441
1956-57 ..	53,225	2,727	125,606	(a)	10	2	..	181,570
1957-58 ..	57,513	4,278	122,245	(a)	20	..	6	184,062
1958-59 ..	62,249	3,881	113,402	(a)	10	..	..	179,542
1959-60—								
Hybrid ..	39,339	2,981	76,879	} (a)	4	..	..	184,928
Other ..	12,399	402	52,924					

PRODUCTION ('000 BUSHEL).(c)

Average for three years ended—								
1938-39 ..	3,204	665	3,170	1	(d)	..	(d)	7,040
1948-49 ..	2,446	314	2,960	(d)	1	(d)	(d)	5,721
1958-59 ..	2,347	175	3,428	(a)	(d)	(d)	..	5,950
Year—								
1955-56 ..	1,868	176	2,710	(d)	(d)	1	(d)	4,755
1956-57 ..	1,945	81	3,468	(a)	(d)	..	..	5,494
1957-58 ..	2,237	241	3,161	(a)	(d)	..	(d)	5,639
1958-59 ..	2,860	203	3,654	(a)	(d)	..	..	6,717
1959-60—								
Hybrid ..	1,998	167	2,688	} (a)	(d)	..	..	6,725
Other ..	487	13	1,372					

YIELD PER ACRE (BUSHEL).(c)

Average for three years ended—								
1938-39 ..	26.4	33.5	17.6	43.7	12.3	..	10.2	22.0
1948-49 ..	26.7	41.8	24.2	6.7	7.2	14.8	13.7	25.8
1958-59 ..	40.7	48.2	28.5	(a)	16.8	30.0	..	32.7
Year—								
1955-56 ..	33.5	49.7	25.1	12.5	15.0	19.4	80.0	28.4
1956-57 ..	36.6	29.6	27.6	(a)	12.0	30.0	..	30.3
1957-58 ..	38.9	56.5	25.9	(a)	14.9	..	..	30.6
1958-59 ..	45.9	52.4	32.2	(a)	25.5	..	..	37.4
1959-60—								
Hybrid ..	50.8	56.2	35.0	} (a)	25.5	..	..	36.4
Other ..	39.3	32.3	25.9					

(a) Not available for publication. (b) Includes 3 acres in the Northern Territory. (c) 56 lb. per bushel. (d) Less than 500 bushels.

The average yield for Australia for the five-year period ended 1959-60 was 30.6 bushels per acre. Among principal producing countries during 1959, the United States of America averaged 51.5 bushels per acre and Italy 48.6 bushels.

3. Price of Maize.—The average wholesale price of maize in the Melbourne market in 1959-60 was 16s. 1d. a bushel compared with 15s. 4½d. in 1958-59.

4. Value of Crop.—The estimated gross value of the crop in each State for the 1959-60 season and the value per acre were as follows:—

MAIZE FOR GRAIN : VALUE OF CROP, 1959-60.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Aggregate value .. £'000	1,688	131	2,210	..	..	..	4,029
Value per acre .. £	32.6	38.7	17.0	..	..	..	21.7

5. Exports of Maize and Maize Products.—Details of exports of maize for the five years ended 1959-60 are shown below.

MAIZE : EXPORTS, AUSTRALIA.

Particulars.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
Quantity .. '000 bus.	185	32	48	15	22
Value £'000	119	26	30	10	15

Imports of maize into Australia are not recorded separately.

Exports of cornflour, which prior to the 1939-45 War were very small, increased considerably during the war years, the principal country of destination being New Zealand. In 1959-60, however, only 48,000 lb., valued at £1,482, were exported. It should be noted that these figures include some quantities of "cornflour" made from wheat. Imports of cornflour into Australia are not recorded separately.

6. World Production.—According to preliminary figures released by the United States Department of Agriculture, world production of maize in the year 1959 amounted to 7,955 million bushels, harvested from 260 million acres, giving an average yield per acre of 30.7 bushels. This compared with production in the previous year of 7,395 million bushels from 246 million acres, and an average of 30.1 bushels per acre.

The United States of America is the most important maize-producing country in the world and during the three years ended 1959 the area sown to maize in that country averaged 77 million acres or 31 per cent. of the world total. During the same period, production averaged 3,861 million bushels or about 53 per cent. of the world total. These figures are not strictly comparable with those for other countries included in the above-mentioned world totals, as the area and an estimate of grain equivalent of maize used as green fodder are included.

A graph showing the production of maize in Australia appears on page 899.

§ 7. Barley.

1. Area, Production and Yield per Acre.—The area sown to barley for grain expanded considerably during the ten years preceding the 1939-45 War—from 383,000 acres in 1930-31 to 836,000 acres in 1939-40. This increase was followed by a decline to 443,000 acres in 1943-44, but the area sown has increased in succeeding years and in 1958-59 reached the record level of 2,381,000 acres. Victoria was originally the principal barley-growing State, but since 1913-14 its place has been taken by South Australia which accounted for 55 per cent. of the Australian acreage in 1959-60. There has been a substantial increase in the acreage sown in most States in recent years, particularly in Western Australia and Queensland. Small areas of barley are sown for hay, and larger quantities are sown for green forage, but these are not included in this section. The production of barley for grain in Australia in 1958-59 was a record at 62,976,000 bushels. The previous highest recorded production occurred in 1956-57 when 49,279,000 bushels were produced. The area, production and yield per acre of barley for grain in the several States for the years 1955-56 to 1959-60, compared with the averages for the three-year periods ended 1938-39, 1948-49 and 1958-59 are shown in the following table:—

BARLEY FOR GRAIN: AREA, PRODUCTION AND YIELD PER ACRE.

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
AREA ('000 ACRES).								
Average for three years ended—								
1938-39 ..	13	138	10	391	53	8	(a)	613
1948-49 ..	23	166	18	587	65	7	(a)	866
1958-59 ..	73	354	184	1,255	324	8	..	2,198
Years—								
1955-56 ..	54	309	146	1,042	337	6	(a)	1,894
1956-57 ..	44	345	131	1,222	344	7	..	2,093
1957-58 ..	69	352	173	1,212	307	8	..	2,121
1958-59 ..	106	363	249	1,332	322	9	..	2,381
1959-60—								
Malting (2-row)	79	264	238	1,234	53	} (b)	..	(b)
Other (6-row)	39	14	22	56	368		..	
Total ..	118	278	260	1,290	421	12	..	2,379

BARLEY FOR GRAIN: AREA, PRODUCTION AND YIELD PER ACRE—*continued.*

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
PRODUCTION ('000 BUSHELLS).(c)								
Average for three years ended—								
1938-39 ..	197	2,174	135	6,816	660	252	(d)	10,234
1948-49 ..	316	3,149	375	11,964	748	194	(d)	16,746
1958-59 ..	1,463	7,192	4,673	29,740	4,239	267	..	47,574
Year—								
1955-56 ..	1,120	6,877	4,216	24,598	4,653	191	(d)	41,655
1956-57 ..	781	7,549	2,960	34,003	3,751	235	..	49,279
1957-58 ..	685	3,447	2,956	17,552	3,556	270	..	30,466
1958-59 ..	2,922	8,581	8,103	37,665	5,410	295	..	62,976
1959-60—								
Malting (2-row)	4,734	5,318	6,434	11,463	926	} (b)	..	(b)
Other (6-row)	847	275	516	394	6,054		..	(b)
Total ..	2,581	5,593	6,650	11,857	6,980	418	..	34,079

YIELD PER ACRE (BUSHELLS).(c)								
Average for three years ended—								
1938-39 ..	15.2	15.7	13.5	17.4	12.5	31.5	52.3	16.7
1948-49 ..	13.7	19.0	20.8	20.4	11.5	27.7	19.5	19.3
1958-59 ..	20.0	20.3	25.4	23.7	13.1	33.4	..	20.7
Year—								
1955-56 ..	20.7	22.2	29.0	23.6	13.8	30.2	15.0	22.0
1956-57 ..	17.7	21.9	22.5	27.8	10.9	33.2	..	23.5
1957-58 ..	10.0	15.5	17.1	14.5	11.6	32.2	..	14.4
1958-59 ..	27.6	23.6	32.6	28.3	16.8	31.6	..	26.5
1959-60—								
Malting (2-row)	21.8	20.2	25.8	9.3	17.5	} (b)	..	(b)
Other (6-row)	21.8	19.8	23.6	7.0	16.4		..	(b)
Total ..	21.8	20.1	25.6	9.2	16.6	33.8	..	14.3

(a) Less than 500 acres. (b) Not available. (c) 50 lb. per bushel. (d) Less than 500 bushels.

For Australia (excluding Tasmania), 79 per cent. of the area of barley for grain in 1959-60 was sown with malting, or 2-row, barley, while the remainder consisted of 6-row, or feed, varieties. The proportion, however, varied considerably in the several States. The utilization of barley during the season ended November, 1959, was as follows:—exports, 37,644,000 bushels; malting and distilling, 8,175,000 bushels; pearl barley, 143,000 bushels; seed and stock feed, 14,697,000 bushels.

The following table sets out the acreage and production of malting and other barley in Australia during the seasons 1955-56 to 1959-60 and the averages for the three years ended 1938-39, 1948-49 and 1958-59.

BARLEY, MALTING AND OTHER: AREA AND PRODUCTION, AUSTRALIA.

Period.	Area. ('000 Acres.)			Production. ('000 Bushels).(a)			Yield per Acre. (Bushels).(a)		
	Malting (2-row).	Other (6-row).	Total.	Malting (2-row).	Other (6-row).	Total.	Malting (2-row).	Other (6-row).	Totals.
Average for three years ended—									
1938-39 ..	523	90	613	8,963	1,271	10,234	17.1	14.1	16.7
1948-49 ..	769	97	866	15,142	1,604	16,746	19.7	16.5	19.3
1958-59 ..	1,809	389	2,198	41,633	5,941	47,574	23.0	15.3	20.7
Year—									
1955-56 ..	1,510	384	1,894	35,470	6,185	41,655	23.5	16.1	22.0
1956-57 ..	1,705	388	2,093	43,871	5,408	49,279	25.7	13.9	23.5
1957-58 ..	1,758	363	2,121	26,404	4,062	30,466	15.0	11.2	14.4
1958-59 ..	1,965	416	2,381	54,624	8,352	62,976	27.8	20.1	26.5
1959-60 ..	(b) 1,868	(b) 499	2,379	(b) 25,575	(b) 8,086	34,079	(b) 13.7	(b) 16.2	14.3

(a) 50 lb. per bushel.

(b) Excludes Tasmania.

A graph showing the production of barley appears on page 899.

2. **Australian Barley Board.**—Following the outbreak of war in 1939, the Australian Barley Board, representative of the whole industry, was formed, and the Commonwealth Government acceded to its request to acquire the entire 1939–40 barley crop, which was placed under the control of the Board. A pool was established, from which proceeds were distributed with appropriate margins for different grades of barley. The Board was responsible for the marketing and storage of barley, and, like the Australian Wheat Board, appointed licensed receivers to receive grain on its behalf.

Following the decision of the Commonwealth Government not to acquire barley in the smaller producing States after 1941–42, the pooling of barley in Queensland reverted to the control of the Queensland Barley Board (originally established in 1930), and in Western Australia a State Barley Board was established to control marketing.

The Commonwealth Government ceased to acquire barley altogether after the 1947–48 crop, and the Victorian and South Australian Governments formed a joint board under the same name as the former Commonwealth board to market the 1948–49 and subsequent crops of the two States. Details for the seasons from 1954–55 to 1959–60 are shown in the table below.

AUSTRALIAN BARLEY BOARD : BARLEY RECEIVED, SOLD, ETC.

Pool.			Quantity Received.	Quantity Sold.(a)	Total Advances made per Bushel on 2-row No. 1 Grade less freight.	Total Net Payments to Growers.
			'000 bushels.	'000 bushels.	s. d.	£
No. 16 (1954–55 Crop)	..	..	20,679	20,709	12 10.92	11,953,430
„ 17 (1955–56 „ )	..	..	29,357	29,454	10 3.441	12,990,173
„ 18 (1956–57 „ )	..	..	39,029	39,102	10 2.541	16,965,609
„ 19 (1957–58 „ )	..	..	18,023	18,195	11 9.61	9,151,748
„ 20 (1958–59 „ )	..	..	42,550	42,560	10 10.1	19,616,789
„ 21 (1959–60 „ )	..	..	11,772	11,772	(b) 9 0.0	4,290,271

(a) Includes surplus in out-turn except for No. 20 Pool for which this surplus has not yet been determined. (b) As at 31st December, 1960. At that date, it was estimated that the amount still to be paid to growers was 1s. 0.529d. per bushel.

3. **Prices.**—The average wholesale price for 2-row English malting barley in the Melbourne market during 1959–60 was 14s. 7d. compared with 13s. 9d. in 1958–59.

4. **Value of Barley Crop.**—The estimated gross value of the barley crop in each State for the 1959–60 season and the value per acre are shown in the following table:—

BARLEY FOR GRAIN : VALUE OF CROP, 1959-60.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Aggregate value .. £'000	1,583	2,643	3,240	5,500	3,379	278	16,623
Value per acre .. £	13.3	9.5	12.5	4.3	8.0	22.4	7.0

5. **Exports.**—Exports of barley during the five years ended 1959–60 averaged 24,801,000 bushels. South Australia was the principal exporting State, and Japan, the Federal Republic of Germany, the Netherlands and the United Kingdom were the principal countries to which barley was shipped. Particulars of Australian exports for the years 1955–56 to 1959–60 are shown in the following table:—

BARLEY : EXPORTS, AUSTRALIA.

Particulars.	1955–56.	1956–57.	1957–58.	1958–59.	1959–60.
Quantity '000 bus.	21,065	26,501	21,501	29,924	25,013
Value £'000	10,471	12,745	9,474	16,898	11,541

Imports of barley into Australia are not recorded separately.

In addition to exports of barley grain, there are also exports of Australian pearl and Scotch barley, the total for 1959-60 amounting to 229,390 lb., valued at £10,999, consigned mainly to Malaya.

6. Malt.—(i) *Production.* Details of the quantity of grain used and the production of barley malt are given in the following table:—

BARLEY MALT : GRAIN USED AND MALT PRODUCED, AUSTRALIA.

Particulars.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
Grain used . . '000 bus. <i>a</i>	7,803	7,855	8,494	8,198	8,539
Malt produced . . '000 bus. <i>b</i>	7,782	7,895	8,197	8,108	8,435

(a) 50 lb. per bushel.

(b) 40 lb. per bushel.

(ii) *Exports.* Since 1952-53, the production of malt in Australia has been sufficient to meet local requirements and to provide a margin for export. Exports amounting to 1,225,139 bushels (value £1,167,631) and 1,103,927 bushels (value £1,046,693) were recorded in 1958-59 and 1959-60 respectively.

7. *World Production.*—In comparison with the barley production of other countries, that of Australia is extremely small. The main producers in 1959 were the United States of America, France and Canada. China is also normally a major producer, but details for 1959 are not available. Australian production in that year was approximately one per cent. of the world total.

According to estimates made by the United States Department of Agriculture, world production of barley in the year 1959 amounted to 3,285 million bushels harvested from 136.6 million acres, equivalent to a yield per acre of 24.0 bushels. This compared with the production of 3,310 million bushels in the previous year from 135.8 million acres, and a yield per acre of 24.4 bushels.

§ 8. Rice.

The principal rice-growing areas of the world are confined almost entirely to Asia although limited quantities are grown in other countries. In Australia, rice was first cultivated at the Yanco Experimental Farm in New South Wales, but it was not grown commercially until 1924-25, when 16,240 bushels were produced from 153 acres. Favoured by high average yields and protected by tariff, rice culture made rapid progress in the Murrumbidgee Irrigation Area until local requirements were met and a surplus became available for export. The acreage sown in this area is controlled, as the quantity of water available is limited.

The area sown in New South Wales in 1959-60 was 48,950 acres, which was below the 1956-57 record of 50,477 acres. However, production in 1959-60 amounted to a record of 6,732,053 bushels, which was 113,120 bushels more than the previous highest, recorded in 1958-59.

A graph showing the production of rice appears on page 899.

The bulk of Australia's exports of rice in 1959-60 was shipped to Papua and New Guinea, the Pacific Islands, the United Kingdom and New Zealand.

Details relating to area, production and exports for the years 1955-56 to 1959-60, are shown in the following table:—

RICE : AREA, PRODUCTION AND EXPORTS, AUSTRALIA.(a)

Season.	No. of Holdings Growing Rice.(b)	Area.	Production (Paddy Rice).		Average Yield (Paddy) per Acre.	Exports.(d)	
			Quantity.	Gross Value.		Un-cleaned.	Cleaned.
		Acres.	'000 Bushels. (e)	£'000.	Bushels.	Cwt.	Cwt.
1955-56 ..	620	41,182	4,725	3,406	114.7	179,297	678,929
1956-57 ..	652	50,477	4,262	3,069	84.4	177,123	408,634
1957-58 ..	743	46,774	5,658	4,045	121.0	211,426	430,928
1958-59 ..	775	47,054	6,619	4,731	140.7	182,583	704,381
1959-60 ..	848	48,950	6,732	4,450	137.5	265,640	1,055,861

(a) Until recently rice-growing in Australia has been practically confined to New South Wales with very small acreages only being sown in Queensland and Western Australia. Production commenced in the Northern Territory in 1956-57 but details, which are confidential, are not included in the table. (b) Twenty acres or more in area. (c) Excludes the value of straw. (d) Imports into Australia are not recorded separately. (e) 42 lb. per bushel.

In 1956, the Commonwealth Government entered into an agreement for the development of large scale rice-growing in the Northern Territory. The agreement, which was made with a company financed by American and Australian interests, granted a 30 year lease over 750,000 acres of sub-coastal plains east of Darwin and provided for the development of 500,000 acres of land for rice-growing within 15 years. Production of rice commenced in 1956-57 but, as only one company is involved, details of area and production are confidential and not available for publication.

§ 9. Sorghum for Grain.

The growing of sorghum for grain on an extensive scale is a recent development in Australia. No details of the area and production of this cereal are available prior to 1939-40, but the output was of little importance. The climatic conditions of Queensland and northern New South Wales are particularly suited to the growing of sorghum and so far development has been restricted mainly to these areas, and more particularly to Queensland which accounts for the greater portion of the area sown. The grain produced is fed to livestock and has become an important source for supplementing other coarse grains for the feeding of livestock. Other sorghums are grown in Australia mainly as green fodder, hay and silage (sweet sorghums and Sudan grass) and for the production of brush for broom manufacture (broom millet). Particulars of the area and production of sorghum grown for grain are given in the following table.

GRAIN SORGHUM : AREA, PRODUCTION AND YIELD PER ACRE, AUSTRALIA.

Season.	Area.			Production.(a)			Yield per Acre.(a)		
	N.S.W.	Q'land.	Total.	N.S.W.	Q'land.	Total	N.S.W.	Q'land.	Total.
	Acres.	Acres.	(b)	Bushels.	Bushels.	(b)	Bushels.	Bushels.	(b)
1955-56 ..	23,697	155,527	179,298	662,973	3,960,195	4,624,273	28.0	25.5	25.8
1956-57 ..	34,585	171,705	206,659	671,331	4,243,227	4,919,247	19.4	24.7	23.8
1957-58 ..	47,017	166,979	214,442	521,325	3,885,567	4,407,500	11.1	23.3	20.6
1958-59 ..	41,899	210,371	252,419	943,359	6,365,880	7,309,645	22.5	30.3	29.0
1959-60 ..	51,195	220,094	271,553	1,451,967	6,630,369	8,086,405	28.4	30.1	29.8

(a) 60 lb. per bushel.

(b) Includes small areas sown and quantities produced in other States.

§ 10. Potatoes.

1. **Area, Production and Yield per Acre.**—Victoria possesses particular advantages for the growing of potatoes, as the rainfall is generally satisfactory and the climate is unfavourable to the spread of Irish blight; consequently, the crop is widely grown. The principal areas of that State are the central highlands and the south-western and Gippsland districts. Until 1958–59, Tasmania came next in order of acreage sown, although the production exceeded that of Victoria in some of the war years. In 1958–59 and 1959–60, New South Wales, which had previously occupied third position, supplanted Tasmania as the second most important State in area sown. Tasmanian production, however, is still larger than that in New South Wales. The areas sown in these three States accounted for 77 per cent. of the total for Australia in 1959–60.

The area sown, production and yield per acre of potatoes in each State during the years 1955–56 to 1959–60 and the averages for the three-year periods ended 1938–39, 1948–49 and 1958–59 are shown hereunder:—

POTATOES : AREA, PRODUCTION AND YIELD PER ACRE.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust. (a)
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AREA (ACRES).

Average for three years ended—								
1938–39 ..	21,049	40,376	11,551	4,445	4,627	32,044	59	114,151
1948–49 ..	20,440	53,862	10,795	6,084	6,753	38,643	103	136,680
1958–59 ..	16,589	45,225	12,980	6,035	7,977	19,002	94	107,903
Year—								
1955–56 ..	13,270	37,020	10,202	5,373	6,826	20,842	74	93,607
1956–57 ..	14,959	39,706	12,925	5,677	8,558	19,125	100	101,050
1957–58 ..	17,326	49,846	14,400	6,260	8,322	21,696	92	117,946
1958–59 ..	17,482	46,122	11,614	6,168	7,051	16,186	90	104,713
1959–60 ..	19,159	48,506	12,311	5,872	6,964	15,525	67	108,404

PRODUCTION (TONS).

Average for three years ended—								
1938–39 ..	52,158	137,583	17,191	20,342	23,678	109,285	143	360,380
1948–49 ..	62,701	191,590	26,470	32,149	38,722	148,389	598	500,619
1958–59 ..	68,533	245,937	50,989	48,072	50,024	92,367	391	556,315
Year—								
1955–56 ..	44,162	163,239	37,561	36,460	42,079	77,930	439	401,870
1956–57 ..	54,459	227,307	49,499	43,665	53,741	89,700	601	518,974
1957–58 ..	66,689	251,159	56,468	49,965	49,229	101,500	420	575,433
1958–59 ..	84,450	259,346	46,999	50,587	47,103	85,900	152	574,537
1959–60 ..	81,908	242,548	51,468	48,923	56,000	98,000	360	579,207

YIELD PER ACRE (TONS).

Average for three years ended—								
1938–39 ..	2.48	3.41	1.49	4.58	5.12	3.41	2.42	3.16
1948–49 ..	3.07	3.56	2.45	5.28	5.73	3.84	5.81	3.66
1958–59 ..	4.13	5.44	3.93	7.97	6.27	4.86	4.16	5.16
Year—								
1955–56 ..	3.33	4.41	3.68	6.79	6.16	3.74	5.93	4.29
1956–57 ..	3.64	5.73	3.83	7.69	6.28	4.69	6.01	5.14
1957–58 ..	3.85	5.04	3.92	7.98	5.92	4.68	4.57	4.88
1958–59 ..	4.83	5.62	4.05	8.20	6.68	5.31	1.69	5.49
1959–60 ..	4.28	5.00	4.18	8.33	8.04	6.31	5.37	5.34

(a) Includes Northern Territory.

After the outbreak of war in the Pacific in December, 1941, the area sown to potatoes increased rapidly and reached a maximum of 241,803 acres in 1944-45. Areas sown in subsequent seasons were considerably less, however, and the figure for 1959-60 was 108,404 acres.

The average yield in Australia for 1959-60 was 5.34 tons per acre, only slightly less than the record yield of 5.49 tons obtained the previous season.

2. **Gross Value of Potato Crop.**—The estimated gross value of the potato crop of each State for the 1959-60 season and the value per acre are shown in the following table:—

POTATOES : VALUE OF CROP, 1959-60.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
Aggregate value £'000	1,682	5,808	1,275	1,009	1,740	1,938	8	13,460
Value per acre £	88	120	104	171	250	125	119	124

3. **Consumption.**—The annual consumption of potatoes in Australia during each of the three years 1957-58 to 1959-60 amounted to 515,700 tons, 511,900 tons and 514,600 tons respectively, or 118.5 lb., 115.2 lb. and 113.3 lb. respectively per head of population. These figures exclude the quantities used for seed, which averaged about 54,000 tons annually over this period. New South Wales, Queensland and, in some seasons, South Australia do not produce the quantities necessary for their requirements and must import from Tasmania and Victoria, which have a surplus.

4. **Marketing.**—Commonwealth control of potato marketing under war-time legislation ceased at the end of 1948 with the completion of sales of the 1947-48 crop.

Potato Marketing Boards were subsequently established in all States under separate State legislation. The life of the Queensland Board was not extended when its term ended in 1954, and the New South Wales Board was voted out by growers in 1956. As the Victorian Board does not acquire the State crop, potato marketing is now conducted chiefly on an open marketing system.

5. **Exports.**—Prior to the 1939-45 War, small quantities of potatoes were exported, principally to the Pacific Islands and Papua. After the war, the export trade expanded considerably. It reached a peak of 37,570 tons in 1952-53, but then fell sharply. Details showing exports for the years 1955-56 to 1959-60 are given in the following table:—

POTATOES : EXPORTS, AUSTRALIA.

Particulars.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
Quantity tons	3,478	3,958	7,410	4,489	4,742
Value £'000	225	263	227	152	134

Imports of potatoes into Australia in 1959-60 amounted to 1 cwt. only, valued at £1.

§ 11. Onions.

1. **Area, Production and Yield per Acre.**—Australia's supply of onions comes chiefly from Victoria, which accounted for 43 per cent. of the total area and 49 per cent. of the quantity produced in 1959-60. Queensland was next with 38 per cent. of the area and 26 per cent. of the production. The Victorian crop consists almost entirely of brown onions of good keeping qualities, and the bulk of the crop is grown in a small section of the Western Division of the State, where soil conditions have been found to be particularly suitable for onion growing on a commercial scale. Details of the area, production and yield per acre are given in the following table for the years 1955-56 to 1959-60 together with averages for the three-year periods ended 1938-39, 1948-49 and 1958-59.

ONIONS : AREA, PRODUCTION AND AVERAGE YIELD.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
AREA (ACRES).								
Average for three years ended—								
1938-39 ..	126	5,634	1,187	521	122	8	6	7,604
1948-49 ..	433	6,245	2,234	534	468	26	4	9,944
1958-59 ..	491	4,614	3,655	635	413	29	9	9,846
Year—								
1955-56 ..	318	3,337	2,480	524	321	22	8	7,010
1956-57 ..	532	4,503	3,258	608	428	28	5	9,362
1957-58 ..	498	5,368	4,296	694	415	37	9	11,317
1958-59 ..	444	3,971	3,412	602	397	21	13	8,860
1959-60 ..	697	3,994	3,550	641	392	29	12	9,315

PRODUCTION (TONS).								
Average for three years ended—								
1938-39 ..	324	34,039	3,040	3,904	915	42	21	42,285
1948-49 ..	1,703	41,156	10,489	5,032	3,831	153	24	62,388
1958-59 ..	2,496	31,982	15,505	5,625	4,599	132	71	60,410
Year—								
1955-56 ..	1,759	20,299	9,157	4,911	3,547	140	42	39,855
1956-57 ..	2,669	26,811	14,279	5,611	4,606	114	32	54,122
1957-58 ..	2,343	40,678	18,653	5,945	4,149	186	76	72,030
1958-59 ..	2,476	28,456	13,584	5,318	5,043	97	106	55,080
1959-60 ..	3,658	27,808	14,708	5,644	4,830	135	39	56,822

YIELD PER ACRE (TONS).								
Average for three years ended—								
1938-39 ..	2.57	6.04	2.56	7.49	7.50	5.25	3.50	5.56
1948-49 ..	3.93	6.59	4.70	9.42	8.19	5.88	6.00	6.27
1958-59 ..	5.08	6.93	4.24	8.86	11.14	4.55	7.89	6.14
Year—								
1955-56 ..	5.53	6.08	3.69	9.37	11.05	6.36	5.25	5.69
1956-57 ..	5.02	5.95	4.38	9.23	10.76	4.07	6.40	5.78
1957-58 ..	4.70	7.58	4.34	8.57	10.00	5.03	8.44	6.36
1958-59 ..	5.58	7.17	3.98	8.83	12.70	4.62	8.15	6.22
1959-60 ..	5.25	6.96	4.14	8.80	12.32	4.66	3.25	6.10

2. **Gross Value of Onion Crop.**—The estimated gross value of the onion crop and the value per acre are shown in the following table for the 1959-60 season:—

ONIONS : VALUE OF CROP, 1959-60.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
Aggregate value £'000	174	1,012	1,101	319	229	6	..	2,841
Value per acre £	249	253	310	498	584	207	..	305

3. **Consumption.**—The annual consumption of onions in Australia averaged 61,500 tons or 13.9 lb. per head of population during the three years ended 1959-60. These figures exclude an estimated wastage which averaged 3,000 tons per annum.

4. **Exports.**—Onions are the only root crop, other than potatoes, in which any considerable overseas trade is carried on by Australia. In 1959-60, exports amounted to 1,124 tons, valued at £70,052, and were shipped mainly to New Caledonia and Australian Territories. The quantity of exports in 1958-59 was 1,998 tons, valued at £61,793. Imports of onions, while not recorded separately prior to 1959-60, amounted to 2,061 tons, valued at £72,195 in that year.

§ 12. Hay.

1. General.—(i) *Area and Production.* As already stated, the chief crop in Australia in terms of area, is wheat grown for grain. Up to and including 1946–47, hay was next, but in recent years it has dropped in relative importance. In 1959–60, the areas sown to green fodder, oats for grain, and barley (two and six row) for grains were larger than that sown to hay.

In 1959–60, the hay area represented 8.1 per cent. of the total area cropped. A graph showing the area sown to hay crops since 1900–01 appears on page 897. In most European countries, hay consists almost entirely of meadow and other grasses, but in Australia a very large proportion consists of oats, lucerne and wheat. The area, production and yield per acre of hay of all kinds in the several States during the years 1955–56 to 1959–60 and the averages for the three-year periods ended 1938–39, 1948–49 and 1958–59 are shown below:—

HAY : AREA, PRODUCTION AND YIELD PER ACRE.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
AREA ('000 ACRES).								
Average for three years ended—								
1938–39 ..	859	1,122	67	540	439	81	3	3,111
1948–49 ..	516	642	66	287	245	93	3	1,852
1958–59 ..	556	978	64	336	305	129	4	2,372
Year—								
1955–56 ..	562	879	63	326	269	137	5	2,241
1956–57 ..	367	782	45	299	242	123	3	1,861
1957–58 ..	554	871	69	291	339	110	3	2,237
1958–59 ..	747	1,282	78	419	333	154	5	3,018
1959–60 ..	482	848	81	245	319	127	3	2,105
PRODUCTION ('000 TONS).								
Average for three years ended—								
1938–39 ..	975	1,181	94	591	434	120	3	3,398
1948–49 ..	618	987	119	396	275	153	4	2,552
1958–59 ..	752	1,712	129	476	377	248	7	3,701
Year—								
1955–56 ..	846	1,526	137	461	384	261	10	3,625
1956–57 ..	538	1,423	96	453	289	238	6	3,043
1957–58 ..	535	1,413	122	304	386	205	4	2,969
1958–59 ..	1,183	2,299	169	672	455	302	10	5,090
1959–60 ..	779	1,351	179	207	433	221	7	3,177
YIELD PER ACRE (TONS).								
Average for three years ended—								
1938–39 ..	1.14	1.05	1.40	1.09	0.99	1.48	1.00	1.09
1948–49 ..	1.20	1.54	1.80	1.38	1.12	1.65	1.33	1.38
1958–59 ..	1.35	1.75	2.02	1.42	1.24	1.92	1.75	1.56
Year—								
1955–56 ..	1.51	1.74	2.17	1.41	1.42	1.91	2.08	1.62
1956–57 ..	1.47	1.82	2.12	1.52	1.19	1.94	1.81	1.63
1957–58 ..	0.96	1.62	1.77	1.05	1.14	1.86	1.39	1.33
1958–59 ..	1.58	1.79	2.17	1.60	1.37	1.96	1.98	1.69
1959–60 ..	1.62	1.59	2.21	0.84	1.36	1.75	2.15	1.51

For a number of reasons, particularly the variations in the relative prices of grain and hay and the favourableness or otherwise of the season for a grain crop, the area of hay is apt to fluctuate considerably. The area under hay in Australia during the season 1915–16, 3,598,000 acres, was the largest on record, while the area recorded in 1958–59, 3,018,000 acres, was the largest since 1938–39. The area in 1959–60 was only 2,105,000 acres.

A graph showing the production of hay appears on page 899.

(ii) *Varieties Grown.* Information regarding areas cut for hay in 1959–60 is given in the following table.

HAY : AREA OF VARIOUS KINDS GROWN, 1959-60.
(Acres.)

State.	Wheaten.	Oaten.	Lucerne.	Other.	Total
New South Wales	82,429	58,722	166,926	174,039	482,116
Victoria	41,708	207,351	61,443	537,046	847,548
Queensland	7,049	2,713	65,785	5,272	80,819
South Australia	52,076	118,149	21,174	53,900	245,299
Western Australia	53,399	176,565	755	88,767	319,486
Tasmania	2,069	15,843	1,088	107,544	126,544
Northern Territory .. ..	..	..	..	326	326
Australian Capital Territory ..	24	754	1,267	1,014	3,059
Australia	238,754	580,097	318,438	967,908	2,105,197

For all States and the Territories combined, the proportions of the areas sown to the principal kinds of hay in 1959-60 were 28 per cent. for oaten, 15 per cent. for lucerne, 41 per cent. for wheaten, and 46 per cent. for other hay. In that year, oaten hay predominated in South Australia and Western Australia, lucerne in Queensland, and meadow and grass hay in the remaining States.

2. **Value of Hay Crop.**—The following table shows the estimated gross value, and the value per acre, of the hay crop of the several States for the 1959-60 season:—

HAY : VALUE OF CROP, 1959-60.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
Aggregate value £'000	7,334	14,583	3,033	3,403	3,877	2,104	93	(a) 34,433
Value per acre £	15.2	17.2	37.5	13.9	12.1	16.6	30.4	16.4

(a) Includes £6,000 in the Northern Territory.

3. **Farm Stocks of Hay.**—Particulars of stocks so held at 31st March in each year 1956 to 1960 are given in the table below.

STOCKS OF HAY HELD ON FARMS.
(Tons.)

31st March—	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Australia.
1956 ..	830,619	1,870,214	149,187	474,456	306,586	270,138	7,778	3,908,978
1957 ..	775,464	2,008,678	156,599	555,681	222,941	296,257	7,617	4,023,237
1958 ..	553,691	1,643,876	89,897	384,143	211,069	256,199	3,492	3,142,367
1959 ..	1,463,334	2,464,050	166,657	679,003	290,988	311,825	9,323	5,385,180
1960 ..	1,535,252	1,766,857	203,675	304,227	292,086	255,471	10,778	4,368,346

4. **Exports.**—Under normal conditions, hay, whether whole or in the form of chaff, is somewhat bulky for oversea trade, and consequently does not figure largely among the exports of Australia. During 1959-60, exports amounting to 1,822 tons, valued at £35,007 were made principally to Singapore, the Federation of Malaya and Hong Kong. Imports of hay were 4 tons valued at £70 in 1959-60.

§ 13. Green Fodder.

1. **Nature and Extent.**—Considerable areas are devoted to the growing of green fodder, mainly in connexion with the dairying industry. In the 1959-60 season, green fodder ranked second to wheat in area of crops throughout Australia. A graph showing the area sown to green fodder appears on page 897. The areas recorded in respect of green fodder include areas of crops cut for feeding to live-stock as green fodder, or ensilage, together with areas fed off to stock as green forage. Included with the latter are areas which may have been sown with the intention of harvesting for grain, but which, owing to adverse conditions, showed no promise of producing grain or even hay and were fed off to live-stock. The principal crops cut for green fodder are oats, wheat and lucerne, while small quantities

of barley, sorghum, maize, rye and sugar-cane are also used in this way. In 1959-60, the area under green fodder (4,094,094 acres) consisted of oats (1,810,284 acres), lucerne (1,475,492 acres), wheat (163,693 acres), barley (141,033 acres), sorghum (122,595 acres), maize (34,847 acres), rye (22,492 acres), sugar cane (1,652 acres) and other crops (322,006 acres). Particulars concerning the area of green fodder in the several States during each of the years 1955-56 to 1959-60 are given in the following table.

GREEN FODDER : AREA.
(Acres.)

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
1955-56	826,789	345,723	689,469	583,559	666,398	54,401	..	970	3,167,309
1956-57	813,642	333,115	640,316	657,967	752,072	48,435	2	772	3,246,321
1957-58	993,039	465,009	714,048	748,089	770,739	54,094	4	1,032	3,746,054
1958-59	1,238,314	319,150	638,667	550,366	769,199	61,322	273	667	3,577,958
1959-60	1,578,759	422,237	725,155	595,713	708,793	62,229	240	968	4,094,094

2. Value of Green Fodder Crops.—The value of these crops is variously estimated in the several States, but the Australian total, excluding Western Australia, may be taken as approximately £7,000,000 for the 1958-59 season and £7,600,000 for the 1959-60 season.

§ 14. Sugar-cane.

1. Area.—Sugar-cane growing appears to have commenced in Australia in or about 1862, and is confined to New South Wales and Queensland. A brief outline of the development of the industry was included in earlier issues of the Official Year Book (*see* No. 38, page 985). The area of sugar cane in Australia for the seasons 1955-56 to 1959-60 and the averages for the three year-periods ended 1938-39, 1948-49 and 1958-59 are shown in the following table:—

SUGAR-CANE : AREA.(a)
(Acres.)

Season.	New South Wales.			Queensland.			Australia.			Total.
	Area crushed.	Area of stand-over and newly-planted cane.	Area cut for plants.	Area crushed.	Area of stand-over and newly-planted cane.	Area cut for plants.	Area crushed.	Area of stand-over and newly-planted cane.	Area cut for plants.	
Average for three years ended—										
1938-39	10,468	10,366	(b)	247,632	89,690	(b)	258,100	100,056	(b)	(b)
1948-49	7,687	8,666	338	230,905	90,448	12,891	238,592	99,114	13,229	350,935
1958-59	11,094	9,462	619	360,709	110,786	12,596	371,803	120,248	13,215	505,266
Year—										
1955-56	7,522	8,728	670	365,252	104,782	12,111	372,774	113,510	12,781	499,065
1956-57	9,182	9,419	522	360,932	106,734	12,450	370,114	116,153	12,972	499,239
1957-58	10,734	9,241	720	364,985	107,424	12,946	375,719	116,665	13,666	506,050
1958-59	13,368	9,727	616	356,210	118,200	12,391	369,578	127,927	13,007	510,512
1959-60	14,248	10,510	392	299,732	151,114	11,039	313,980	161,624	11,431	487,035

(a) Excludes areas cut for green fodder.

(b) Not available.

2. Productive and Unproductive Cane.—The areas shown in the preceding table do not include the small acreage cut for green fodder, which in 1959-60 amounted to 1,652 acres. The whole area planted is not cut for crushing during any one season, there being always a considerable amount of young and "stand-over" cane as well as a small quantity required for plants. Thus the season in which the highest acreage is recorded may not show the greatest area of cane cut for crushing. In 1959-60, a considerably larger area than that actually cut was available for crushing but because of restrictions on production (*see* para 8, page 923) remained as standover cane. As a result the area of standover cane was much higher than normal in 1959-60.

3. Production of Cane and Sugar.—For Queensland, statistics of the production of sugar-cane are not available for seasons prior to 1897-98. In that season, the total for Australia was 1,073,883 tons, compared with 9,002,258 tons in the 1959-60 season. The record production of 10,212,593 tons was achieved in 1958-59.

In the following table, production data relating to cane and raw sugar are shown for the seasons 1955–56 to 1959–60 and averages for the three-year periods ended 1938–39, 1948–49 and 1958–59:—

SUGAR-CANE : PRODUCTION OF CANE AND SUGAR.
(Tons.)

Season.	New South Wales.		Queensland.		Australia.	
	Cane.	Sugar.(a)	Cane.	Sugar.(a)	Cane.	Sugar.(a)
Average for three years ended—						
1938–39	324,531	43,419	5,215,217	760,994	5,539,748	804,413
1948–49	283,613	35,444	4,767,291	700,053	5,050,904	735,497
1958–59	356,324	43,881	9,221,497	1,260,564	9,577,821	1,304,445
Year—						
1955–56	284,539	36,028	8,616,163	1,135,685	8,900,702	1,171,713
1956–57	294,087	35,918	8,978,081	1,171,879	9,272,168	1,207,797
1957–58	303,086	36,854	8,945,617	1,256,271	9,248,703	1,293,125
1958–59	471,798	58,870	9,740,795	1,353,543	10,212,593	1,412,413
1959–60	574,527	70,677	8,427,731	1,217,803	9,002,258	1,288,480

(a) Raw sugar at 94 net titre.

The production of raw sugar in Australia in 1959–60 amounted to 1,288,480 tons manufactured from 9,002,258 tons of cane.

Official annual data are not available regarding the total number of persons engaged in the sugar industry in New South Wales and Queensland. However, according to data obtained from the population census of 30th June, 1954, the number of persons engaged in the sugar-cane industry in New South Wales and Queensland comprised 20,185 males and 431 females, a total of 20,616 persons, of whom 4,245 were employers and 5,118 were self-employed.

The number of separate holdings growing 5 acres or more of cane was 7,273 in 1959–60.

4. Average Production of Cane Sugar.—Owing to climatic variations, comparison between the average yields of cane per productive acre in Queensland and New South Wales cannot be made accurately except on an annual basis. In New South Wales, the crop matures in from 20 to 24 months, whereas in Queensland a period of from 12 to 14 months is sufficient. The average yields of cane and sugar per acre for the years 1955–56 to 1959–60 and for the three-year periods ended 1938–39, 1948–49 and 1958–59 are shown below. Allowance should be made in interpreting these figures for the disparity in maturing periods noted above.

SUGAR-CANE AND SUGAR : YIELD PER ACRE.
(Tons.)

Season.	New South Wales.			Queensland.			Australia.		
	Cane per acre Crushed.	Sugar per acre Crushed.	Cane to each ton of Sugar.	Cane per acre Crushed.	Sugar per acre Crushed.	Cane to each ton of Sugar.	Cane per acre Crushed.	Sugar per acre Crushed.	Cane to each ton of Sugar.
Average for three years ended—									
1938–39	31.00	4.15	7.47	21.06	3.07	6.85	21.46	3.12	6.89
1948–49	36.90	4.61	8.00	20.65	3.03	6.81	21.17	3.08	6.87
1958–59	32.12	3.96	8.12	25.57	3.49	7.32	25.76	3.52	7.34
Year—									
1955–56	37.83	4.79	7.90	23.59	3.11	7.59	23.88	3.14	7.60
1956–57	32.03	3.91	8.19	24.87	3.25	7.66	25.05	3.26	7.68
1957–58	28.24	3.43	8.22	24.51	3.44	7.12	24.62	3.44	7.15
1958–59	35.29	4.40	8.01	27.35	3.80	7.20	27.63	3.82	7.23
1959–60	40.32	4.96	8.41	28.12	4.06	6.92	28.67	4.10	6.99

5. **Quality of Cane.**—The quantity of cane required to produce a ton of sugar varies with the variety planted, the district, and the season. In 1959–60, a record yield of 4.10 tons of sugar per acre was achieved.

The Bureau of Sugar Experiment Stations in Queensland is rendering useful service to the sugar industry by advocating and demonstrating better methods of cultivation and the more scientific use of fertilizers, lime, etc., and by producing and distributing improved varieties of cane.

6. **Production and Utilization.**—Details of the production and utilization of raw sugar for the years 1955–56 to 1959–60 are shown below. It should be noted that the details of sugar production refer to the annual periods shown, without regard to the season in which the sugar was produced. Consumption is shown in terms of refined sugar, including that consumed in manufactured products.

RAW SUGAR : PRODUCTION AND UTILIZATION, AUSTRALIA.

Year.	Changes in Stocks.	Pro- duction.	Exports. (a)	Miscel- laneous Uses.(b)	Consumption in Australia.(a)	
					Total.(c)	Per Head. (c)
	'000 tons.	'000 tons.	'000 tons.	'000 tons.	'000 tons.	lb.
1955–56	+40.5	1158.0	617.0	21.7	478.8	115.1
1956–57	+21.1	1217.7	698.7	20.0	477.9	112.3
1957–58	–21.1	1222.2	733.8	29.4	480.1	110.3
1958–59	+10.3	1353.4	827.4	18.4	497.3	111.9
1959–60	+22.6	1270.6	725.2	18.6	504.2	111.0

(a) Includes sugar content of manufactured products.
in refining.

(b) Includes industrial uses and losses

(c) In terms of refined sugar.

7. **Consumption in Factories.**—The quantity of refined sugar used in factories in 1959–60 amounted to 293,822 tons compared with 274,575 tons in 1958–59 and 278,764 tons in 1957–58. Particulars of sugar used in establishments not classified as factories are not available, and consequently these quantities are deficient to that extent. In 1959–60, consumption by factories engaged in the production of jams, jellies and preserved fruit amounted to 82,231 tons, by those producing confectionery, ice cream, etc., to 60,033 tons, by breweries to 43,775 tons and by factories producing aerated waters, cordials, etc. to 44,565 tons.

8. **Control of Cane Production in Queensland.**—Agreements between the Commonwealth and Queensland Governments have fixed the wholesale price of sugar and sugar products from time to time. Details of prices are shown in para. 14 of this section (see page 925).

The Queensland Government acquires the whole of the sugar production of that State and of New South Wales by legislation and private agreement respectively. The net proceeds of all sugar sold are pooled and a uniform price paid to mills.

Sugar production barely met local requirements in 1923, but increased rapidly until 1925 when approximately 44 per cent. of the production was exported. Steps were taken by the Government to restrict planting of new areas and production was fairly stable until 1929. In that year, the pool was reorganized and mills received the full pool price for sugar up to the amount of their previous maximum production, further output being acquired at export prices.

Between 1929 and 1939, production rose by more than 70 per cent. despite the restrictions above-mentioned and the fact that export prices were generally less than half the pool price.

In 1939, following the International Sugar Agreement, which limited exports, the Queensland Government limited the pool (mill peaks) to 737,000 tons in respect of Queensland production. Mill quotas were allotted on the understanding that mills would allot quotas to individual growers. Mill peaks have been raised since 1939, following the negotiation of the Commonwealth Countries Sugar Marketing Agreement of 1949, which allowed the Queensland Government to initiate a planned expansion of the industry. In 1959, they were 1,213,500 tons and in 1960, 1,214,600 tons.

9. **Sugar Agreement in Australia—Embargo on Imports, etc.**—Reference was made in Official Year Book No. 37, pages 940–41, to the agreement operating between the Commonwealth and Queensland Governments in respect of the sugar industry in Australia. Briefly, the agreement places an embargo on sugar importations and fixes the price of sugar consumed in Australia. The current agreement operates for a five year period from 1st September, 1956, to 31st August, 1961. On 28th November, 1960, the Commonwealth Government appointed a Committee of Enquiry to investigate all facets of the sugar and canned fruits industries. At the end of May, 1961, the Committee had concluded its hearings, but had not submitted a report.

10. **International Sugar Agreement.**—The International Sugar Agreement of 1937 was superseded by the International Sugar Agreement of 1953 which came into force on 1st January, 1954. Details of the 1937 Agreement were given in Official Year Book No. 40, pages 881 and 882, and previous issues.

The 1953 agreement, which was amended by protocol from 1st January, 1957, was for the five year period ended 31st December, 1958.

In October, 1958, a new agreement was negotiated at a conference held in Geneva under the auspices of the United Nations. The new agreement, which follows the lines of the 1953 agreement, is for five years commencing 1st January, 1959, with provision for a review during the third year. It is designed to assure supplies of sugar to importing countries and markets for sugar to exporting countries at equitable and stable prices, to facilitate a steady increase in the consumption of sugar and a corresponding increase in the supply of sugar, and, in general, to further international co-operation in connexion with world sugar problems. Basic export quotas of exporting countries are established and provision is made for adjustment of quotas according to fluctuations in the world sugar price. A number of price levels are stipulated at which the International Sugar Council may or must take action. The Council has considerable discretion to adjust quotas during the quota year.

Under the 1953 agreement, the British Commonwealth, as a whole, was granted an export quota of 2,375,000 tons rising to 2,500,000 tons in 1958. Under the 1958 agreement, the quota remains at 2,500,000 tons for 1959 but is increased by 75,000 tons to 2,575,000 tons in 1960 and 1961. This quota is not subject to the fluctuations mentioned above. The allocation of the total quota among exporting members of the British Commonwealth is a matter for internal arrangement by those countries and territories themselves. Australia's quota for 1960 and 1961 was approximately 651,000 tons.

Details of the marketing arrangements for Australian sugar are given in paragraph 15 below.

11. **Net Return for Sugar Crop.**—Details of the disposal of the crop, net value of exports and the average price realized during each of the years 1955–56 to 1959–60 are shown in the following table:—

RAW SUGAR(a): NET RETURNS, AUSTRALIA.

Year.		Proportion Exported. (b)	Net Value of Exports per Ton. (b)			Average Price per Ton for Whole Crop.	Estimated Value of Crop.
		Per cent.	£	s.	d.	£ s. d.	£'000.
1955–56	.. ..	53.46	38	11	4	42 9 0	49,727
1956–57	.. ..	56.01	41	6	5	46 14 3	56,403
1957–58	.. ..	57.44	45	16	8	49 7 6	63,829
1958–59	.. ..	60.53	39	8	2	45 9 11	64,263
1959–60	.. ..	55.42	40	6	2	47 9 11	61,131

(a) 94 net titre.

(b) As supplied by the Queensland Sugar Board.

The estimated value of the raw sugar produced has been based upon details taken from the audited accounts of the Queensland Sugar Board. The values stated represent the gross receipts from sales in Australia and overseas, less refining costs, freight, administrative charges, etc., and export charges, but including concessions to the fruit industry and other rebates which in 1959–60 amounted to £662,207. The value thus obtained represents the net market value of all raw sugar sold, which, less the rebates, is divided between the growers and millers in the approximate proportions of 70 per cent. and 30 per cent. respectively.

12. **Exports of Sugar.**—Particulars of the exports of cane sugar (raw and refined) for each year from 1955–56 to 1959–60 are as follows:—

SUGAR : EXPORTS, AUSTRALIA.

Particulars.	1955–56.	1956–57.	1957–58.	1958–59.	1959–60.
Quantity tons	592,229	675,282	707,806	802,971	701,319
Value £'000	24,723	28,780	34,996	32,163	26,671

13. **Sugar By-products.**—Large quantities of molasses are produced as a by-product in the sugar mills. Details for a series of years of the quantities produced and the amounts used for distilling, fuel, manure and other purposes will be found in Chapter VI.—Manufacturing Industry.

Other by-products include industrial chemicals and building boards. These boards are made from the residue of crushed fibre after removal of the sugar content from sugar-cane and possess high insulating and sound-absorbing properties which make them particularly suitable for use in walls and ceilings.

14. **Sugar Prices.**—The prices of sugar in Australia, from 1952 to 1959 in the case of raw sugar, and from 1952 to 1961 in the case of refined sugar (as determined under the Sugar Agreement in Australia—see para. 9 above), are shown in the following table:—

SUGAR : PRICES IN AUSTRALIA.

Year.	Raw Sugar, 94 Net Titre.			Refined Sugar.		
	Average Return per Ton Received by Millers and Growers for—			Date of Determination.	Wholesale Price to Retailer per Ton.	Retail Price, Capital Cities per lb.
	Home Consumption.	Exports.(a)	Whole Crop. (a)			
	£ s. d.	£ s. d.	£ s. d.		£ s. d.	d.
1952 ..	44 3 0	41 2 0	42 12 9	24.3.52 to 12.10.52	65 12 10	8
1953 ..	47 18 6	38 13 9	42 10 8	13.10.52 to 13.5.56	73 16 11	9
1954 ..	47 1 0	37 8 0	41 6 11	14.5.56 to 15.5.60	82 1 0	10
1955 ..	46 18 0	38 11 6	42 9 0	16.5.60 to 31.8.61	90 5 2	11
1956 ..	53 11 6	41 6 5	46 14 3			
1957 ..	54 3 0	45 16 8	49 7 6			
1958 ..	54 15 0	39 8 2	45 9 11			
1959 ..	56 8 6	40 6 2	47 9 11			

(a) Including "Excess" Sugar.

15. **Marketing Arrangements.**—From 1939 to 1952, the British Ministry of Food purchased Australia's surplus raw sugar at prices negotiated annually and varying from £stg.11 5s. in 1939 to £stg.38 10s. a ton in 1952 including tariff preference (for prices in other years see earlier issues of the Year Book).

On 1st January, 1953, the British Commonwealth Sugar Agreement became effective. This agreement, which has been extended to 1965, provides for Australia to export a maximum of 600,000 tons per annum, subject to annual review. Of the 600,000 tons, 315,000 tons is purchased by the United Kingdom Government at an annually negotiated price and the balance is sold at world market prices plus tariff preferences where applicable. The negotiated prices for 1959 and 1960 were £stg.45 2s. and £stg.43 16s. 8d. In 1960 and 1961, Australia has an additional quota of 51,000 tons as her share of the increased allocation to Commonwealth exporters under the current International Sugar Agreement. This tonnage will not receive the benefit of tariff preferences.

The Sugar Bill introduced into the House of Commons on 5th July, 1955, provided for the reversion of dealings in sugar in the United Kingdom to a trader to trader basis as from 1st January, 1957. However, under the Bill, a Sugar Board was created which is responsible for the purchase of the negotiated price sugar which the United Kingdom Government has contracted to take under the British Commonwealth Sugar Agreement.

16. Fruit Industry Sugar Concession Committee and Sugar Rebates.—The Fruit Industry Sugar Concession Committee was established by agreement between the Commonwealth and Queensland Governments and administers a fund contributed by the Queensland Government on behalf of the sugar industry.

Until 15th May, 1960, a rebate of £2 4s. per ton of refined sugar used in processing approved fruit products was paid to Australian manufacturers, provided they bought the fresh fruit at prices not lower than those declared by the Committee as reasonable. This was increased to £5 per ton from 16th May, 1960.

An export sugar rebate is also paid by the Committee to exporters of approved fruit products to ensure that manufacturers do not pay higher prices for Australian sugar than the price for which the cheapest imported sugar could be landed duty free in Australia.

Under the Supplementary Sugar Agreement for 1956–1961, the Queensland Government contributes to the fund £264,000 annually and also reimburses the Committee for the actual expenditure on export sugar rebates. Any money remaining in the fund after the payment of rebates and administrative expenses may be used by the Committee for the promotion of the use and sale of fruit products, or for scientific research for the purpose of increasing the yield per acre of Australian fruit.

17. Bulk Handling of Sugar.—The conversion of the Australian sugar industry to bulk handling and mechanized loading and unloading of raw sugar is well advanced. About 80 per cent. of raw sugar in Australia is now handled in bulk without being bagged at any stage.

Terminals for the bulk loading of sugar were opened at Mackay in 1957, at Lucinda and Bundaberg in 1958, at Townsville in 1959, and at Moorilyan in 1960.

Bulk receiving facilities are in operation, or in the course of construction, at all Australian refineries.

§ 15. Vineyards.

1. Progress of Cultivation.—(i) *Area of Vineyards.* Since the early days of Australian settlement, the expansion of the cultivation of vines has been most rapid in Victoria and South Australia, the area under vineyards in the 1959–60 season in these two States comprising 78 per cent. of the total area. The purposes for which grapes are grown in Australia are (a) for wine-making, (b) for table use and (c) for drying. The total area of vines in the several States during each of the years 1955–56 to 1959–60 and the averages for the three-year periods ended 1938–39, 1948–49 and 1958–59 are shown in the following table:—

VINEYARDS : AREA.

(Acres.)

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Aust.(a)
Average for three years ended—						
1938–39	16,824	42,071	2,670	57,185	6,197	124,947
1948–49	16,482	44,114	3,099	58,971	9,965	132,631
1958–59	17,210	44,823	2,926	57,199	8,967	131,125
Years—						
1955–56	18,099	44,817	2,916	59,862	9,107	134,801
1956–57	17,394	44,902	2,916	57,409	8,996	131,617
1957–58	16,984	44,767	2,821	57,439	9,023	131,034
1958–59	17,252	44,801	3,041	56,749	8,881	130,724
1959–60—						
Wine	6,896	4,515	285	43,488	3,602	58,786
Table	2,599	2,065	2,798	272	1,496	9,230
Drying	7,741	37,549	..	13,093	3,853	62,236
Total	17,236	44,129	3,083	56,853	8,951	130,252

(a) Excludes particulars for Australian Capital Territory and Northern Territory.

NOTE.—There are no vineyards in Tasmania.

(ii) *Wine Production, Bounties, etc.* The total production of wine (beverage and distillation) in Australia has shown a marked increase in recent years, rising from 14.3 million gallons in 1938-39 to 28.4 million gallons in 1959-60. In the same period, consumption of beverage wine in Australia has increased from 4.5 million gallons (0.7 gallons per head of population) to 11.7 million gallons (1.16 gallons per head of population). For many years prior to the 1939-45 War, a bounty was paid from the Wine Export Encouragement Account on wine shipped overseas under the provisions of the Wine Export Bounty Act 1930. Details of the bounty, payment of which was discontinued in 1947, may be found in Official Year Book No. 39, page 992.

(iii) *Wine Research Trust Fund.* Under the Wine Research Act of 1955, the sum of £500,000 was made available from a Wine Industry Assistance Account (established by the Wine Export Bounty Act of 1947) for the establishment of the Australian Wine Research Institute, which is a limited liability company established under the Companies Act of South Australia. When the Export Bounty on wine was abolished in 1947, there remained £1.1 million in the Wine Export Encouragement Account, referred to in (ii), above. This sum had been collected from an additional Excise duty on spirit used in fortifying wine, which was also abolished in 1947.

The quantity of wine produced in the several States during the 1955-56 to 1959-60 seasons, together with the averages for the three-year periods ended 1938-39, 1948-49 and 1958-59, are shown in the following table:—

WINE : PRODUCTION.(a)
(’000 Gallons.)

Season.	N.S.W.	Victoria.	Q’land.	S. Aust.	W. Aust.	Australia.
Average for three years ended—						
1938-39	2,712	1,359	31	14,021	396	18,519
1948-49	4,178	3,040	31	25,906	689	33,844
1958-59	3,974	2,435	36	25,190	743	32,378
Years—						
1955-56	2,327	1,342	37	18,403	786	22,895
1956-57	3,412	2,369	38	24,038	886	30,743
1957-58	4,150	2,583	21	26,400	700	33,854
1958-59	4,360	2,354	49	25,131	644	32,538
1959-60	3,835	2,147	37	21,576	801	28,396

(a) Net factory and farm production of beverage and distillation wine excluding the liquid gallage of spirits added in wine fortifying.

2. Imports and Exports of Wine.—(i) *Imports.* Imports for 1959-60 amounted to 60,029 gallons valued at £130,265 compared with 51,812 gallons valued at £121,599 in the previous year.

During 1959-60, Italy supplied 20,208 gallons valued at £24,558, France supplied 19,864 gallons valued at £67,776, and the Federal Republic of Germany supplied 5,327 gallons valued at £12,918. The bulk of the sparkling wines were obtained from France.

(ii) *Exports.* Exports in 1959-60 totalled 1,745,347 gallons, of which the United Kingdom received 1,312,999 gallons, New Zealand 54,791 gallons, Canada 269,520 gallons, and other countries 108,037 gallons.

Exports for the five years ended 1959-60 are shown in the following table:—

WINE : EXPORTS FROM AUSTRALIA.

Year.	Quantity (Gallons).			Value (£).		
	Sparkling.	Other.	Total.	Sparkling.	Other.	Total.
1955-56.. ..	5,997	1,197,995	1,203,992	19,833	714,235	734,068
1956-57.. ..	6,701	1,743,648	1,750,349	23,737	1,108,314	1,132,051
1957-58.. ..	4,872	1,484,656	1,489,528	18,194	978,616	996,810
1958-59.. ..	5,203	1,742,046	1,747,249	10,989	1,141,036	1,152,025
1959-60.. ..	6,480	1,738,867	1,745,347	19,898	1,245,755	1,265,653

3. **Oversea Marketing of Wine.**—(i) *The Wine Overseas Marketing Act 1929–1954.* This Act was introduced to place the oversea marketing of surplus wine on an orderly basis. The Australian Wine Board (formerly The Wine Overseas Marketing Board), consisting of representatives from wineries and distilleries, grape-growers and the Commonwealth Government, supervises the sale and distribution of Australian wine exported and recommends conditions under which export licences should be issued. The Board also contributes to wine publicity and trade promotion activities both in Australia and overseas. A London office is maintained by the Board.

(ii) *The Wine Grapes Charges Act 1929–1957.* This Act provides for the imposition of a levy on all grapes used in Australia for the manufacture of wine or spirit used for fortifying wine. The proceeds of the levy are used to defray the administrative and other expenses of the Board, and provision is made for such exemptions from the levy as the Board may recommend.

4. **Other Viticultural Products.**—(i) *Table Grapes.* Grapes for table use are grown in all States except Tasmania, but the area of this type was only about 7 per cent. of the productive area of vines in 1959–60. The quantities of table grapes produced during the season 1959–60 in each State are shown in § 3 of this chapter. (See p. 887.)

(ii) *Raisins and Currants.* The quantities of raisins (including sultanas and lexias) and currants dried during each of the seasons 1955–56 to 1959–60 and the averages for the three-year periods ended 1938–39, 1948–49 and 1958–59 are shown in the following table:—

RAISINS(a) AND CURRANTS : PRODUCTION.

(Tons.)

Season.	N.S. Wales.		Victoria.		South Aust.		Western Aust.		Australia.	
	Raisins.	Currants.	Raisins.	Currants.	Raisins.	Currants.	Raisins.	Currants.	Raisins.	Currants.
Average for three years ended—										
1938–39 ..	5,464	1,163	39,810	8,953	13,215	9,009	723	2,179	59,212	21,304
1948–49 ..	5,429	994	40,027	7,380	8,811	5,243	580	3,179	54,847	16,796
1958–59 ..	10,300	705	53,178	4,294	11,115	4,432	118	1,746	74,711	11,177
Year—										
1955–56 ..	4,313	725	29,417	5,150	11,699	5,009	95	2,463	45,524	13,347
1956–57 ..	9,380	585	50,085	3,954	9,716	3,941	148	2,048	69,329	10,528
1957–58 ..	10,608	674	56,742	4,153	11,306	4,824	111	2,136	78,767	11,787
1958–59 ..	10,914	856	52,707	4,776	12,323	4,531	94	1,055	76,038	11,218
1959–60 ..	7,722	462	44,764	3,331	9,192	2,844	73	1,402	61,751	8,039

(a) Including sultanas and lexias.

5. **Production and Disposal of Dried Vine Fruit.**—As the production of dried vine fruit is far in excess of Australia's requirements, considerable quantities are available for export. Total production during the 1959–60 season amounted to 69,790 tons, while exports for the 12 months ended December, 1960, were 47,728 tons, leaving an estimated 22,062 tons available for Australian consumption from that season's production. Australian consumption includes amounts delivered to biscuit manufacturers, bakeries, etc., as well as retail sales for household consumption.

The following table shows the oversea exports of raisins and currants during each of the years 1955-56 to 1959-60:—

RAISINS AND CURRANTS(a) : EXPORTS, AUSTRALIA.

Year.	Raisins.		Currants.		Total Raisins and Currants.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Tons.	£'000.	Tons.	£'000.	Tons.	£'000.
1955-56..	51,734	6,224	9,561	1,151	61,295	7,375
1956-57..	38,496	5,377	6,521	831	45,017	6,208
1957-58..	52,297	8,019	7,398	938	59,695	8,957
1958-59..	68,245	11,215	7,585	1,051	75,830	12,266
1959-60..	45,634	7,726	4,540	637	50,174	8,363

* (a) Excludes quantities exported as mincemeat.

The chief countries importing Australian raisins and currants are the United Kingdom, Canada and New Zealand, the quantities exported thereto in 1959-60 being 25,663 tons, 15,257 tons and 5,302 tons respectively.

6. Oversea Marketing of Dried Fruits.—(i) *The Dried Fruits Export Control Act 1924-1953.* This Act was passed to organize oversea marketing of Australian dried vine fruits. The Dried Fruits Control Board, consisting of growers' representatives, members with commercial experience in marketing dried fruits and a Government representative, controls the sale and distribution of dried fruit exports, recommends the licensing of exporters and contributes to dried vine fruits publicity activity overseas.

In conjunction with its London agency, the Board has improved dried fruit marketing overseas by its system of appraisement, regulation of shipments and advertising.

(ii) *Dried Fruits Export Charges Act 1924-1929:* This Act provides for a levy on exports of dried fruits to defray costs and expenses incurred by the Board. Provision is made for exemption from the levy upon recommendation by the Board.

(iii) *Post-war Contracts.* For details of the agreements which were negotiated between the Governments of the United Kingdom and Australia during the period 1946-1953, see Official Year Book No. 40, page 888. From 1st December, 1953, exports have been made on a trader to trader basis.

§ 16. Orchards and Fruit Gardens.

1. Area.—The largest area of orchards and fruit-gardens prior to the 1939-45 War was 281,899 acres, which was attained in 1933-34. Since then, the acreage has varied but has not fallen below 260,000 acres. It reached 290,000 acres in 1947-48 but declined somewhat in subsequent years, rising again to 289,000 acres in 1959-60.

ORCHARDS AND FRUIT-GARDENS: AREA.

(Acres.)

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
1955-56	93,482	65,214	41,253	32,998	21,943	23,795	104	118	278,907
1956-57	87,920	63,319	39,561	33,998	22,040	22,994	94	113	270,039
1957-58	88,170	66,221	40,856	35,295	22,186	23,013	81	93	275,915
1958-59	92,780	66,746	43,911	37,237	22,903	23,168	86	89	286,920
1959-60	93,870	68,567	42,587	37,355	23,757	22,713	103	57	289,009

2. **Varieties of Crops.**—The varieties of fruit grown differ in various parts of the States, ranging from pineapples, papaws and mangoes in the tropics, to strawberries, raspberries and currants in the colder parts of the temperate zone. In New South Wales, citrus fruits (oranges, lemons, etc.) and bananas are the principal crops, although apples, peaches, plums, pears and cherries are grown extensively. The principal varieties grown in Victoria are apples, peaches, pears, oranges and apricots. In Queensland, pineapples, apples, bananas, oranges, mandarins, peaches and plums are the varieties most largely cultivated. In South Australia, in addition to apples, oranges, apricots, peaches and pears, almonds and olives are grown extensively. In Western Australia, apples, oranges, pears and plums are the chief varieties. In Tasmania, apples occupy over three-quarters of the fruit-growing area, but small fruits, such as currants, raspberries and gooseberries are grown extensively, the balance of the area being mainly taken up with pears, apricots and plums. The following table shows the acreage—bearing and non-bearing—of the principal kinds of fruit, and the quantities produced.

ORCHARDS AND FRUIT-GARDENS, 1959-60.

Fruit.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
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AREA, BEARING AND NON-BEARING (ACRES).

Apples ..	16,086	20,556	11,146	5,665	14,034	17,733	..	49	85,269
Apricots ..	2,036	4,014	387	4,547	374	701	..	..	12,059
Bananas ..	24,921	..	6,361	..	398	..	28	..	31,708
Cherries ..	2,29 ^c	1,674	13	552	41	41	..	..	4,616
Citrus—									
Oranges ..	25,623	5,724	3,525	10,214	4,215	..	27	..	49,328
Mandarins ..	2,019	229	1,610	275	291	..	2	..	4,426
Lemons and Limes ..	2,361	1,319	460	313	618	..	7	..	5,078
Other ..	519	300	68	392	136	..	4	..	1,419
Nuts ..	248	440	171	3,323	177	..	..	2	4,361
Peaches ..	7,400	11,642	1,677	4,770	829	56	..	2	26,376
Pears ..	3,375	15,076	611	2,038	1,000	1,583	..	1	23,684
Pineapples ..	453	..	12,157	..	..	..	22	..	12,632
Plums and Prunes ..	4,645	2,120	1,380	1,264	1,058	99	..	3	10,569
Small Fruits ..	31	1,210	226	121	17	2,470	..	..	4,075
Other Fruits ..	1,858	4,263	2,795	3,881	569	30	13	..	13,409
Total ..	93,870	68,567	42,587	37,355	23,757	22,713	103	57	289,009

PRODUCTION.

Apples '000 bus.	2,261	3,006	910	1,266	1,150	5,473	..	3	14,069
Apricots " "	263	468	23	698	29	65	..	..	1,546
Bananas " "	4,171	..	636	..	108	..	..	..	4,915
Cherries " "	157	101	..	46	1	3	..	..	308
Citrus—									
Oranges ..	3,988	1,029	463	1,620	348	..	2	..	7,450
Mandarins ..	212	20	212	27	21	..	..	..	492
Lemons and Limes ..	364	156	94	32	109	..	..	..	755
Other ..	159	67	23	94	20	..	1	..	364
Nuts .. '000 lb.	106	271	43	1,715	35	..	1	..	2,171
Peaches '000 bus.	866	1,210	95	689	50	6	..	..	2,916
Pears ..	603	3,583	50	431	138	463	..	..	5,268
Pineapples " "	82	..	4,658	..	..	..	1	..	4,741
Plums and Prunes ..	462	183	78	109	55	17	..	..	904
Small Fruits ..	..	19	10	2	..	94	..	..	125
'000 cwt.	..	..	..	..	..	..	..	..	..

3. **Principal Fruit Crops.**—The area and production of the principal fruit crops and the gross value of production during the seasons 1955-56 to 1959-60 are shown hereunder.

PRINCIPAL FRUIT CROPS : AREA, PRODUCTION AND GROSS VALUE OF PRODUCTION.

Season.	Apples.	Apricots.	Bananas.	Citrus Fruits.	Peaches.	Pears.	Plums and Prunes.
AREA, BEARING AND NON-BEARING (ACRES).							
1955-56..	82,336	13,087	29,331	59,271	23,454	22,030	10,915
1956-57..	81,965	12,493	26,981	57,189	22,020	21,499	10,679
1957-58..	82,595	12,689	26,981	58,631	23,451	21,989	10,816
1958-59..	83,614	12,103	31,798	59,033	25,215	23,014	10,385
1959-60..	85,269	12,059	31,708	60,251	26,376	23,684	10,569
PRODUCTION ('000 BUSHELS).							
1955-56..	13,464	1,383	4,736	8,212	2,582	4,206	842
1956-57..	10,792	1,417	3,625	7,943	2,179	4,606	674
1957-58..	14,703	1,575	3,360	7,575	2,967	5,307	828
1958-59..	13,044	1,430	4,504	7,302	2,592	4,738	802
1959-60..	14,069	1,546	4,915	9,061	2,916	5,268	904
GROSS VALUE OF PRODUCTION. (£'000.)							
1955-56..	16,594	2,286	5,749	8,556	3,365	4,681	1,380
1956-57..	15,188	2,731	7,288	8,367	3,724	5,483	1,398
1957-58..	19,211	2,400	9,121	10,709	3,854	6,635	1,478
1958-59..	16,539	2,054	8,588	10,873	3,194	4,916	1,479
1959-60..	17,174	2,013	7,613	9,390	3,293	5,361	1,579

4. **Production of Jams and Jellies and Preserved Fruit.**—In Australia, considerable quantities of fruit are used in the production of jams and jellies and for preserving. During 1959-60, output of jams, conserves, fruit spreads, etc. amounted to 84,702,000 lb. while output of preserved fruit amounted to 344,294,000 lb. Of the latter figure, pears accounted for 111,891,000 lb., peaches 96,457,000 lb. and pineapples 47,198,000 lb.

The recorded consumption of fruit in factories for all purposes, including that used for juice and cordial manufacture and for drying, was 248,069 tons in 1959-60.

5. **Consumption of Fruit and Fruit Products.**—Details of the estimated consumption of fruit and fruit products per head of population for a series of years ending 1959-60 are shown in Chapter XXX.—Miscellaneous, of this Year Book.

6. **Imports and Exports of Fruit.**—(i) *General.* The imports of fresh fruit into Australia are negligible, while those of dried fruit consist mainly of dates.

A considerable export trade in both fresh and dried fruit is carried on by Australia with overseas countries. The values of the shipments in 1959-60 amounted to £9,293,783 and £9,065,956 respectively. Apples constitute the bulk of the fresh fruit exported, although exports of pears and citrus fruit are considerable.

(ii) *Fresh Fruit.* Particulars of the Australian export trade in fresh and frozen fruit for each of the years 1955-56 to 1959-60 are shown in the following table:—

FRESH AND FROZEN FRUIT : EXPORTS, AUSTRALIA.

Year.	Apples.		Pears.		Citrus.		Total.(a)	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	'000 bus.	£'000.	'000 bus.	£'000.	'000 bus.	£'000.	'000 bus.	£'000.
1955-56	5,023	6,513	1,012	1,470	585	869	6,689	9,138
1956-57	3,969	5,582	1,020	1,731	613	926	5,670	8,585
1957-58	5,892	9,076	1,448	2,755	572	882	7,961	13,062
1958-59	4,948	6,625	1,100	1,783	415	664	6,559	9,413
1959-60	4,885	6,123	1,328	1,970	589	918	6,892	9,294

(a) Total, including exports of all other fresh and frozen fruit.

(iii) *Dried Tree Fruit.* The quantity and value of oversea imports and exports of dried fruit, other than raisins and currants, for the years 1955-56 to 1959-60 are shown below. Normally, the bulk of the imports consists of dates obtained almost entirely from Iraq.

DRIED TREE FRUIT(a): IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.(b)		Exports.	
	Quantity.	Value.	Quantity.	Value.
	'000 lb.	£'000.	'000 lb.	£'000.
1955-56	8,627	204	3,681	428
1956-57	7,052	158	2,887	378
1957-58	8,683	209	1,366	186
1958-59	8,411	203	3,352	482
1959-60	10,791	310	6,221	703

(a) Excludes raisins and currants referred to separately under Vineyards (see p. 929).
of dates and figs only.

(b) Imports

(iv) *Jams and Jellies.* Exports of jams and jellies reached large proportions immediately following the 1939-45 War and in 1946-47 amounted to 65,434,000 lb., compared with the average for the five years ended 1938-39 of 7,118,000 lb. Since 1949-50, when exports totalled 65,229,000 lb., there has been a marked decline and in 1959-60 exports amounted to only 6,512,838 lb., valued at £470,417. Imports of jams and jellies are negligible.

(v) *Preserved Fruit.* The total quantity of fruit preserved in liquid, or partly preserved in liquid, or pulped, imported into Australia during 1959-60 was 660,173 lb. valued at £137,240. Large quantities of fruit preserved in liquid are normally exported from Australia, the quantity recorded in 1959-60 being 199,944,662 lb. valued at £12,385,091. Exports in 1959-60 were principally made up of pears (89,980,557 lb.), peaches (53,624,956 lb.), apricots (14,133,784 lb.) and pineapples (30,314,381 lb.). In addition, the exports of pulped fruits during 1959-60 amounted to 5,294,606 lb. valued at £376,586.

7. Marketing of Apples and Pears.—(i) *Apple and Pear Organization Act 1938-1960.* This Act, which was passed by the Commonwealth Parliament at the request of the apple and pear industry, provides for the establishment of an Australian Apple and Pear Board comprising representatives of growers, exporters, employees and the Commonwealth Government. An oversea representative has also been appointed by the Board.

The function of the Board is the organization and control of exports of fresh apples and pears, and it has the power to regulate shipments, determine export quotas, allocate consignments from each State and recommend the licensing of exporters. The Board contributes to apple and pear publicity activities overseas.

(ii) *Apple and Pear Export Charges Act 1938-1960.* This Act provides for an export levy to meet the expenses of the Board.

(iii) *Apple and Pear Acquisition.* Exports of apples and pears were seriously curtailed during the war and the 1940 to 1948 crops were acquired and marketed under National Security and Defence Regulations. Details of the acquisition scheme will be found on pages 1003 and 1004 of Official Year Book No. 38 and in earlier issues.

8. Marketing of Canned Fruit.—(i) *The Canned Fruits Export Control Act 1926-1959.* This legislation was introduced with the object of organizing the oversea marketing of canned fruit. The Australian Canned Fruits Board, comprising members representing the Commonwealth Government, canners of apricots, peaches, pears, pineapples and fruit salad, and a representative of the growers of canning apricots, peaches and pears, was appointed to organize the oversea marketing of canned fruit and also to recommend the licensing of exporters. The Board establishes terms and conditions of sale overseas and contributes to overseas publicity connected with the canned fruit industry.

The system of marketing adopted by the Board has resulted in the satisfactory disposal of the exportable surplus of canned fruits.

(ii) *The Canned Fruits Export Charges Act 1926-1956.* This Act provides for a levy on exports to meet the Board's expenses. Provision has been made for certain exemptions when recommended by the Board.

(iii) *The Australian Canned Fruit Sales Promotion Committee.* This Committee was established in 1959 to promote the sale of canned deciduous fruits on the home market and overseas. The operations of the Committee are financed by a levy on fruit accepted by the canneries for the production of canned fruit. The Committee comprises representatives of growers and processors of canning fruit and a representative of the Commonwealth Government.

§ 17. Vegetables for Human Consumption.

1. *Area and Production of Fresh Vegetables.*—Details of the areas planted and production of individual kinds of vegetables, excluding potatoes and onions referred to in §§ 10 and 11 of this chapter, are shown below for the seasons 1957–58 to 1959–60.

FRESH VEGETABLES(a) FOR HUMAN CONSUMPTION: AUSTRALIA.

Vegetable.	1957–58.		1958–59.		1959–60.	
	Area Sown.	Production.	Area Sown.	Production.	Area Sown.	Production.
	Acres.	Tons.	Acres.	Tons.	Acres.	Tons.
Asparagus	3,788	5,300	3,620	4,702	3,450	4,210
Beans, French and Runner	17,517	23,217	17,457	25,012	16,714	26,527
Beans, Navy	1,728	266	1,855	371	2,250	451
Beetroot	2,102	13,967	1,976	13,439	1,866	12,804
Cabbages and Brussels Sprouts	6,471	69,475	6,308	70,363	6,088	68,892
Carrots	5,001	47,648	4,625	43,743	4,817	46,391
Cauliflowers	7,734	89,385	7,361	93,913	6,892	80,663
Celery(b)	653	9,949	669	10,265	504	9,320
Cucumbers(b)	1,616	5,822	1,711	6,441	1,435	5,544
Lettuces	4,595	17,017	4,745	19,254	4,770	19,418
Parsnips	1,530	12,426	1,342	11,349	1,441	12,185
Peas, Blue	7,323	3,860	2,571	1,342	3,226	2,148
Peas, Green	47,988	51,714	46,388	52,298	45,130	54,309
Tomatoes	17,096	119,964	16,382	118,819	15,865	126,171
Turnips, Swede and White	4,670	18,701	4,214	20,044	1,886	12,345
All Other	33,739	..	31,640	..	30,992	..
Total	163,551	..	152,864	..	147,326	..

(a) Excludes potatoes and onions.

(b) Incomplete, excludes New South Wales.

2. *Production of Processed Vegetables.*—Total production of canned vegetables in 1959–60 amounted to 83,167,000 lb., which was considerably higher than pre-war production, but only about 70 per cent. of the peak war-time production of 119,149,000 lb. recorded in 1944–45. The principal canned vegetables produced in 1959–60 were green peas (including mint-pro peas) 23,087,000 lb., green beans 3,010,000 lb., baked beans (including pork and beans) 24,573,000 lb., asparagus 6,922,000 lb., beetroot 8,480,000 lb., and mushrooms 3,166,000 lb.

The production of dehydrated vegetables, which was initiated by the Commonwealth Government during the 1939–45 War, rose to a maximum of 22,000,000 lb. in 1945–46, but in 1959–60 it was only 807,000 lb. Production of potato crisps, chips and flakes, which has increased substantially in recent years, amounted to 8,001,000 lb. in 1959–60.

There has been rapid development in the quick-frozen vegetable industry. Data were collected for the first time in 1957–58, when 13,846,000 lb. of frozen vegetables were produced, made up primarily of 10,131,000 lb. of peas and 2,540,000 lb. of beans. In 1959–60, production had risen to 22,899,000 lb., of which 16,962,000 lb. were peas and 4,150,000 lb. were beans.

3. *Imports and Exports of Vegetables.*—The quantity and value of oversea exports of pulse and fresh vegetables during 1959–60 were respectively:—pulse, 8,008 tons, £307,079; onions, 1,124 tons, £70,052; potatoes, 4,748 tons, £133,669; other vegetables, 2,955 tons, £223,043. Imports of pulse amounted to 5,246 tons, valued at £428,829, while imports of fresh vegetables in total were 2,556 tons, valued at £196,722.

In 1959–60, exports of vegetables preserved in liquid consisted of:—Asparagus, 717,629 lb. (£96,532); Beans (including baked), 104,658 lb. (£6,938); Peas, 155,743 lb. (£13,336); Tomatoes, 58,656 lb. (£4,709); Other Vegetables, 385,902 lb. (£45,192).

4. *Consumption of Vegetables.*—Details of the estimated consumption of vegetables for a series of years ending 1959–60 are shown in Chapter XXX.—Miscellaneous, of this Year Book.

§ 18. Tobacco.

1. *States, Area and Production.*—Tobacco has been grown in Australia for a considerable number of years. As early as the season 1888–89, the area of this crop amounted to 6,641 acres, of which 4,833 were in New South Wales, 1,685 in Victoria and 123 in Queensland. Thereafter, the industry fluctuated for many years, reaching a peak in 1932–33 when 26,272 acres were planted. After the 1939–45 War the area fell to below 4,000 acres, but it has increased again largely as a result of the beneficial effect of improved varieties and techniques on average yields and of the protection to Australian growers given by the tariff (*see also* (vi) Tobacco Factories, p. 935).

In 1959–60, the area planted was 19,654 acres. This exceeded the highest post-war level of 15,151 acres, reached in 1958–59, by 4,503 acres, or 30 per cent. The production of dried leaf in 1959–60 at 19,068,000 lb. was also a record.

In the following table, particulars of the area and production of tobacco are given by States for each of the seasons 1955–56 to 1959–60, together with averages for the three-year periods ended 1938–39, 1948–49 and 1958–59.

TOBACCO : AREA AND PRODUCTION.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Aust.
AREA (ACRES).								
Average for three years ended—								
1938–39 ..	697	4,262	3,842	77	1,055	134	(a)	10,067
1948–49 ..	415	1,046	1,948	..	609	..	..	4,018
1958–59 ..	1,257	3,478	7,479	..	1,295	..	(a)	13,509
Year—								
1955–56 ..	893	2,876	6,301	..	1,235	..	1	11,306
1956–57 ..	1,031	2,935	7,029	..	1,176	..	1	12,172
1957–58 ..	1,193	3,252	7,493	..	1,266	..	..	13,204
1958–59 ..	1,543	4,248	7,916	..	1,444	..	..	15,151
1959–60 ..	2,142	6,424	9,527	..	1,561	..	..	19,654
PRODUCTION OF DRIED LEAF ('000 lb.).								
Average for three years ended—								
1938–39 ..	471	1,603	2,173	17	741	104	(b)	5,109
1948–49 ..	380	670	1,725	..	523	..	..	3,298
1958–59 ..	1,066	3,770	5,563	..	1,016	..	(b)	11,415
Year—								
1955–56 ..	547	1,135	3,702	..	722	..	..	6,106
1956–57 ..	805	2,741	4,344	..	819	..	..	8,709
1957–58 ..	1,235	3,683	5,618	..	1,031	..	..	11,567
1958–59 ..	1,158	4,885	6,729	..	1,198	..	..	13,970
1959–60 ..	1,438	7,401	9,149	..	1,080	..	..	19,068

(a) Less than half an acre.

(b) Less than 500 lb.

2. *The Tobacco Industry.*—(i) *Marketing.* In the early days, purchase of the leaf at the farms was the usual practice, but towards the end of the 1930's the auction system was introduced by arrangement between the growers' associations and the manufacturers.

On 9th May, 1941, the Australian Tobacco Board was constituted under the National Security (Australian Tobacco Leaf) Regulations for the purpose of facilitating and regulating the marketing of Australian grown tobacco leaf. All leaf was under the control of the Board, the growers being paid on the valuation as appraised by the Board. The Board ceased to function on 24th September, 1948, and subsequent crops have been marketed at open auction in the respective States. Queensland has had its own Tobacco Leaf Marketing Board since 1948. Growers in New South Wales voluntarily submit their leaf to the Queensland Board for sale at auction. Leaf from Victoria is sold at auction in Melbourne for the Victoria Tobacco Growers' Association. In Western Australia, the leaf is sold in Perth for the Western Australian Tobacco Growers' Association (Inc.).

(ii) *Central Tobacco Advisory Committee.* The Australian Agricultural Council formed the Standing Advisory Committee on Tobacco during 1950. This Committee consisted of representatives of tobacco growers, tobacco manufacturers and the Commonwealth and State Governments. Its main functions were to review the industry and make recommendations on its problems.

The Committee was reconstituted by the Agricultural Council during 1952-53 and its terms of reference are as follows:—

"To report annually to the Agricultural Council, through the Standing Committee on Agriculture and also to the Commonwealth Minister for Customs and Excise, through the Chairman of the Council, on the following:—

- (i) The percentage of Australian tobacco which should be incorporated in locally manufactured tobacco under Customs regulations, having regard to the anticipated volume of Australian production of usable leaf available for absorption by the manufacturing industry;
- (ii) The progress of the industry during the year with particular reference to—
 - (a) marketing problems encountered,
 - (b) a review of prices being paid to farmers in relation to quality of leaf,
 - (c) such other problems as may be retarding the progressive development of the industry, such as the volume of importation of manufactured tobacco and cigarettes."

(iii) *Industry Inquiries.* The tobacco industry has been the subject of a number of investigations during the past 30 years. The Tariff Board inquired into the industry in 1923, 1926, 1931 and 1940 and reports were issued in respect of the last three inquiries.

(iv) *Commonwealth Grants.* Details of the recommendations by the Tobacco Inquiry Committee and grants periodically approved by the Commonwealth Government up to 30th June, 1953, are given in Official Year Book No. 40, pages 895, 896 and in previous issues.

(v) *Research and Investigations.* The Commonwealth Scientific and Industrial Research Organization has been investigating many fundamental problems connected with tobacco culture. One of the major achievements of this organization was the development in the mid-1930's of a technique to control blue mould in the seed bed. State Departments of Agriculture are also carrying out investigations over a wide range of problems, being concerned mainly with variety trials, irrigation, disease and pest control, crop rotation and cultural practices. The New South Wales Department of Agriculture has developed a commercial blue mould resistant hybrid.

In 1955, the Central Tobacco Advisory Committee formulated a programme for increased research and advisory activities. The capital costs of establishing this programme were estimated at £168,000, of which the Commonwealth Government and tobacco manufacturers each agreed to contribute half. Annual contributions are made to the fund by the Commonwealth and State Governments, tobacco growers and manufacturers. A Tobacco Industry Trust Account was established to receive these contributions. This programme commenced in 1956.

During the first four years of the operation of the Trust Account, £628,402 was paid to State and Commonwealth departments. The allocation for 1960-61 is £217,915.

(vi) *Tobacco Factories.* Manufacturers of Australian cigarettes and tobacco are granted a lower rate of duty on imported tobacco leaf, provided it is blended with a prescribed minimum percentage of Australian leaf. These percentages rose from 3 per cent. for cigarettes and 5 per cent. for tobacco in November, 1946, to 28½ per cent. and 24½ per cent. respectively from 1st July, 1960. The percentages to apply from 1st July, 1961, when most of the 1960 tobacco crop will be used in manufacture, are 35 per cent. and 32 per cent. respectively. In 1959-60, the quantity of cured leaf used in tobacco factories in Australia amounted to 49.8 million lb., of which 11.6 million lb. was of local origin. The balance was imported, chiefly from the United States of America.

3. *Oversea Trade.*—Imports of tobacco and manufactures thereof into Australia during 1959-60 were valued at £13.8 million, including 37.0 million lb. of unmanufactured tobacco valued at £13.7 million. Exports of tobacco and tobacco manufactures during 1959-60 were valued at £354,049.

§ 19. Hops.

Hop-growing in Australia is practically confined to Tasmania and some of the cooler districts of Victoria, the total area for 1959-60 being 1,927 acres, of which 1,461 acres were in Tasmania, and 466 acres in Victoria. A small area was also under hops in Western Australia, but the details are not available for publication. The Tasmanian area, though still small, has increased during the present century, the total for 1901-2 being 599 acres. The cultivation of hops was much more extensive in Victoria some 70 years ago than at present, the area in 1883-84 being 1,758 acres.

The production of hops in Australia is insufficient to meet local requirements, and additional supplies are imported to meet the needs of the brewing industry. In the following table, details of the production and imports of hops and the quantity of hops used in breweries are shown for each of the years 1955–56 to 1959–60. Exports of hops are not recorded separately, but are negligible.

HOPS : PRODUCTION AND DISPOSAL, AUSTRALIA.

Year.	Production.		Imports.	Net Available Supplies. (a)	Quantity used in Breweries.
	Quantity.	Gross Value.			
	Cwt.	£'000.	Cwt.	Cwt.	Cwt.
1955–56	34,374	1,102	16,880	51,254	43,638
1956–57	25,230	857	3,074	28,978	40,250
1957–58	32,710	1,137	4,502	37,212	39,370
1958–59	36,499	1,273	8,471	44,970	38,664
1959–60	31,790	1,159	..	31,790	40,357

(a) Disregards movements in stocks.

The Tariff Board conducted an inquiry into the hop-growing industry and issued its report on 12th June, 1945.

§ 20. Flax.

1. **Flax for Fibre.**—During the 1914–18 and 1939–45 Wars, there was an acute shortage of flax fibre and the expansion of production was encouraged by the Commonwealth Government, the area sown reaching a maximum of more than 61,000 acres in 1944–45.

In recent years, the growing of flax for fibre has been confined to Victoria, South Australia and Western Australia. In Victoria and South Australia, production has been directed and controlled by the Flax Commission, which took over the Commonwealth flax undertakings from the Flax Production Committee on 1st November, 1954. In Western Australia, the industry is carried on by a co-operative company.

In November, 1957, the Government approved a three-year extension of bounty assistance to flax producers and decided that the Commonwealth should withdraw from flax fibre production. One important factor which influenced the Government in making this decision was the view expressed by the defence authorities that the industry no longer has the same defence significance as it had when the Flax Commission was first established.

In accordance with the decision, growing of flax under contract to the Flax Commission was discontinued in 1959, all of the Commonwealth mills ceasing to operate before the end of the year. Western Australia is now the only producing State, the mill at Boyup Brook being the only flax mill left in production.

Many former growers of flax for fibre in Victoria are now growing flax for linseed.

Details of the area under flax and the production of straw are given in the following table:—

FLAX FOR FIBRE : AREA AND PRODUCTION.

Season.					Victoria.	S. Aust.	W. Aust.	Australia.
AREA (ACRES).								
1955–56					2,550	526	1,594	4,670
1956–57					2,196	1,864	1,757	5,817
1957–58					5,550	1,410	1,002	7,962
1958–59 .. .. .					..	..	2,015	2,015
1959–60 .. .. .					..	..	1,307	1,307
PRODUCTION (TONS OF STRAW).								
1955–56					4,637	1,150	1,875	7,662
1956–57					4,013	4,606	2,051	10,670
1957–58					9,923	3,077	1,246	14,246
1958–59 .. .. .					..	..	3,665	3,665
1959–60 .. .. .					..	..	2,723	2,723

2. **Flax for Linseed.**—Prior to 1948–49, the growing of flax for linseed oil had not been developed extensively in Australia. Since then, however, action has been taken to develop this industry, the ultimate objective being the production of sufficient linseed to meet Australia's total oil requirements. Development of the industry proceeded rapidly until 1951–52 when 53,741 acres were sown. In 1952–53, there was a decline in the acreage and a further decline in 1953–54 when 6,343 acres only were sown. Since then, an increase in the guaranteed price to £70 per ton, f.o.r. ports, which is notified to growers by the crushers early in each season, has led to an increase in the area sown. A record 99,493 acres of flax for linseed were sown in 1959–60, yielding 26,799 tons of linseed, also a record.

The question of assistance to the industry was investigated by the Commonwealth Tariff Board in 1953 and their conclusions are contained in their Report on *Linseed and Linseed Products* dated 23rd October, 1953.

Details of the area and production of flax for linseed are shown in the following table for the seasons 1955–56 to 1959–60:—

FLAX FOR LINSEED : AREA AND PRODUCTION.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
AREA (ACRES).							
1955–56	1,817	580	45,202	128	..	..	47,727
1956–57	2,404	1,143	86,265	290	..	..	90,102
1957–58	2,251	4,091	90,255	221	549	..	97,367
1958–59	4,622	8,817	22,839	703	244	..	37,225
1959–60	11,933	24,850	60,837	1,687	186	..	99,493
PRODUCTION (TONS OF LINSEED).							
1955–56	400	94	12,738	15	..	..	13,247
1956–57	622	306	17,644	76	..	..	18,648
1957–58	36	1,149	7,279	49	68	..	8,581
1958–59	1,196	2,769	6,510	151	42	..	10,668
1959–60	2,922	7,391	16,247	191	48	..	26,799

§ 21. Peanuts.

The production in Australia of peanuts, or groundnuts, is mainly confined to Queensland, although small quantities are grown in New South Wales, Western Australia and the Northern Territory. Details of the area and production are given in the table below.

PEANUTS : AREA AND PRODUCTION.

Season.	Area (Acres).				Production (Tons).			
	N.S.W.	Q'land.	N.T.	Aust.(a)	N.S.W.	Q'land.	N.T.	Aust.(a)
1955–56	414	31,493	544	32,451	174	8,633	40	8,847
1956–57	419	25,017	208	25,644	234	8,676	17	8,927
1957–58	686	34,739	156	35,581	401	18,326	15	18,742
1958–59	867	59,279	211	60,357	581	31,084	121	31,786
1959–60	837	41,547	388	42,772	532	18,016	215	18,763

(a) Excludes Western Australia for which details are not available for publication.

The gross value of the 1959–60 crop (excluding the small crop in Western Australia) was £1,782,000, which was approximately £1,738,000 less than in 1958–59.

Formerly, considerable quantities of peanut kernels were imported, chiefly from India, for the extraction of oil. These imports were suspended from 1946 to 1949, but have since been resumed on an increasing scale. Total supplies available for consumption in Australia in 1959–60 were 25,224 tons (shell equivalent), after allowing for an increase in stocks held by the Peanut Marketing Board of 5,378 tons. Supplies were made up of 27,494 tons from Australian production received into store by the Board and 3,108 tons imported.

§ 22. Cotton.

1. **General.**—The production of cotton in Australia has been, until recently, restricted to Queensland, where cultivation began in 1860. Cotton has been grown experimentally in some other States in recent years and the first commercial crop outside Queensland was grown in Victoria in the 1959-60 season. Details of areas sown for years prior to 1930 and of Government financial assistance to growers up to 1940 appear in Official Year Book No. 39 and earlier issues.

Australia produces only a small part of its requirements of raw cotton, the balance in 1959-60 being obtained chiefly from the United States of America and Mexico. Since the 1939-45 War, efforts have been directed towards increasing production by an extension of area, the introduction of irrigation methods and payment of bounties. These have met with some measure of success, although production has not reached the 1939-40 level of 17,550,000 lb. of seed cotton. Cotton spinning and weaving industries are referred to in Chapter VI.—Manufacturing Industry.

The Raw Cotton Bounty Act 1940 provided an extension, until 31st December, 1946, of assistance previously granted by way of bounty. The Act was amended in August, 1946, to provide a guaranteed net average return to cotton-growers of 15d. per lb. of raw cotton for five years from 1st January, 1947. It was superseded by the Cotton Bounty Act 1951, which guaranteed a net average return of 9½d. per lb. of seed cotton for five years from 1st January, 1951. The 1951 Act was amended in 1952 to provide for a guaranteed return of 14d. per lb. of seed cotton for the 1953 crop, and for variation by regulation of the guaranteed return, in succeeding seasons, with a minimum of 9½d. per lb. The Act, as amended in 1952 and 1957, was extended in 1958 to cover production up to 31st December, 1963. The guaranteed return has remained at 14d. per lb. of seed cotton since the 1953 season.

2. **Area and Production.**—The area under cultivation and the production in Queensland for the years 1955 to 1959 are shown hereunder. Details of the production of ginned cotton are derived from published statistics of the Queensland Cotton Marketing Board.

COTTON: AREA AND PRODUCTION IN QUEENSLAND.

Season ended December—	Area Sown.	Production of Cotton.				Average Yield per Acre Sown.	
		Unginned.		Ginned.	Ginned— Equiv- alent in Bales. (a)	Unginned.	Ginned.
		Quantity.	Gross Value.				
	Acres.	'000 lb.	£'000.	'000 lb.	Bales.	lb.	lb.
1955	13,290	5,359	307	2,164	4,386	403	163
1956	11,338	3,809	224	1,460	3,046	336	129
1957	10,364	3,390	213	1,341	2,845	327	129
1958	10,493	4,004	249	1,492	3,073	382	142
1959	20,229	9,463	556	3,592	7,621	468	178

(a) Bales of approximately 500 lb.

3. **Consumption of Raw Cotton.**—The following table shows details of the availability and actual consumption of raw cotton in Australian factories, during the last five years:—

RAW COTTON: PRODUCTION, IMPORTS AND CONSUMPTION, AUSTRALIA.
(’000 lb.)

Year.	Production.	Imports.	Total.	Consumption of Raw Cotton.
1955-56	2,164	37,614	39,778	45,262
1956-57	1,460	47,805	49,265	46,699
1957-58	1,341	42,578	43,919	49,054
1958-59	1,492	43,984	45,476	47,323
1959-60	3,592	41,519	45,111	51,689

§ 23. Financial Assistance to Primary Producers.

NOTE.—See also Chapter XXI.—Public Finance, page 822.

Direct financial assistance to primary producers by the Commonwealth Government takes the form of bounties, subsidies and other financial assistance. Brief details of some of the more important payments are given below:—

(i) *Cotton Bounty*. The Cotton Bounty Act provides for payment of a bounty on seed cotton delivered by growers to processors. The present rate of bounty is designed to give growers an average return of 14d. per lb. The total payment in 1958–59 was £139,454 and in 1959–60 it was £214,456.

(ii) *Dairy Products Bounty*. Under the provisions of the Dairy Industry Act 1952, a subsidy was paid to dairymen to ensure them a return based upon the estimated cost of production for a specified quantity equal to local consumption plus twenty per cent. The Dairy Industry Act 1957 provided for continuation of the scheme for a further five years. A new feature, however, was that any subsidy made available under the scheme would be determined before the commencement of each season and would be on the basis of a fixed amount in any dairying year. In 1960–61, total payments amounted to £13,500,000, the same as in each of the previous four years.

(iii) *Flax Fibre Bounty*. From 1954 to 1958, a bounty was paid on scutched flax fibre produced from flax grown in Australia. In 1957, the Act was amended to provide for the calculation of the bounty payable on the basis of fibre sold, in lieu of fibre produced. In 1957–58, payments amounted to £62,348. Expenditure in 1958–59 was £93,167 and in 1959–60, £82,676. The period covered by the bounty terminated on 31st October, 1960.

Other forms of financial assistance to primary producers include payments for Cattle Tick Control, the Dairy Industry Extension Grant, Flood, Drought and Bush Fire Relief, Food Production, Expansion of Agricultural Advisory Services and Assistance to the Tobacco Industry.

§ 24. Fertilizers.

1. *General*.—In the early days of settlement in Australia, scientific cultivation was little understood. It was common, as in other new countries, for the land to be cropped continuously to a degree of exhaustion. This practice is very much less in evidence now than in the early days of Australian agricultural development. Under the guidance of the State Departments of Agriculture and the relevant Commonwealth authorities, such as the Bureau of Agricultural Economics and the Commonwealth Scientific and Industrial Research Organization, scientific farming is now much more widely practised. The importance of fallowing, crop rotation, and the application of suitable fertilizers in adequate quantities is now appreciated by farmers. The introduction of the modern seed-drill, acting also as a fertilizer-distributor, has greatly facilitated the use of artificial manures and much land formerly regarded as useless for cultivation has now been made productive. With the rapid increase in the area of sown pastures, particularly since the 1939–45 War, large quantities of artificial fertilizers have been used. Fertilizer is generally applied at the time of sowing, and periodical (usually annual) top-dressings are carried out afterwards to keep the pastures in good condition. In addition, increasing areas of native pastures have been top-dressed in recent years. In 1959–60, pastures accounted for almost 60 per cent. of both the total area fertilized and the total quantity of fertilizers used. The application of fertilizers from aircraft, particularly to pastures, has become a feature of modern farm technique, and has enabled the artificial fertilization of some areas which would not be readily accessible to ground machinery. Details of the area treated and quantity of fertilizer used by both aerial and ground methods of application in total are shown in para. 3, below, while further details on aerial top-dressing are given in § 25.

In order to protect the users of artificial fertilizers, legislation has been passed in each of the States regulating the sale and prohibiting the adulteration of fertilizers. A list of these Acts and their main features are given in Official Year Book No. 12, page 378.

2. *Imports and Exports*.—The Australian output of prepared fertilizers is derived chiefly from imported rock phosphate and is sufficient for local requirements.

The chief sources of Australia's supplies of rock phosphate are Nauru, Christmas Island (Indian Ocean) and the Gilbert and Ellice Islands. Sodium nitrate is obtained chiefly from Chile.

The imports of artificial fertilizers during the five years ended 1959-60 are shown in the following table:—

ARTIFICIAL FERTILIZERS : IMPORTS INTO AUSTRALIA.

Fertilizer.		1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
Ammonium Sulphate	tons	9,466	28,251	20,945	19,979	11
	£'000	228	624	522	497	(a)
Potash Salts ..	tons	39,099	38,246	53,570	43,912	36,204
	£'000	652	638	882	740	499
Rock Phosphate ..	tons	1,418,527	1,321,607	1,273,766	1,353,739	1,322,173
	£'000	2,828	2,804	3,325	3,750	3,654
Sodium Nitrate ..	tons	14,102	11,219	14,430	7,505	6,837
	£'000	323	252	354	152	139
Other	tons	506	785	4,619	16,951	24,119
	£'000	16	20	125	497	519
Total	tons	1,481,700	1,400,108	1,367,330	1,442,086	1,389,344
	£'000	4,047	4,338	5,208	5,606	4,811

(a) Less than £500.

Exports of fertilizers (practically all of which were manufactured locally) amounted to 20,900 tons valued at £313,000 in 1959-60 compared with 14,059 tons valued at £442,000 in 1958-59.

3. **Quantities Used Locally.**—Information regarding the area treated with artificial fertilizers and the quantity of artificial fertilizers (superphosphate, bonedust, nitrates, etc.) used in each State during the 1959-60 season is given in the following table. Details of the area fertilized with natural manure (stableyard, etc.) are no longer collected.

AREA FERTILIZED AND QUANTITY OF ARTIFICIAL FERTILIZERS USED, 1959-60.

State or Territory.	Area Fertilized ('000 Acres).			Fertilizers Used (Tons).		
	Crops.	Pasture Lands.	Total.	Crops.	Pasture Lands.	Total.
New South Wales	3,353	5,043	8,396	139,079	261,623	400,702
Victoria	4,079	9,153	13,232	217,319	522,716	740,035
Queensland	481	20	501	99,628	2,013	101,641
South Australia	3,679	3,471	7,150	188,733	202,895	391,628
Western Australia	6,382	5,752	12,134	315,213	266,018	581,231
Tasmania	167	1,029	1,196	24,015	81,951	105,966
Northern Territory	(a)	1	1	134	16	150
Australian Capital Territory ..	3	42	45	263	2,270	2,533
Total	18,144	24,511	42,655	984,384	1,339,502	2,323,886

(a) Less than 500 acres.

Particulars of the quantity of artificial fertilizers used in each State and Territory during each of the seasons 1955-56 to 1959-60, are shown in the next table. These details include the quantity used for the top-dressing of pasture lands.

**QUANTITY OF ARTIFICIAL FERTILIZERS USED.
(Tons.)**

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W.Aust.	Tas.	N.T.	A.C.T.	Total.
1955-56 ..	307,608	653,591	99,075	380,783	468,108	82,967	67	2,982	1,995,181
1956-57 ..	292,261	644,830	103,915	389,952	481,981	89,598	54	2,805	2,005,396
1957-58 ..	337,865	739,322	114,681	418,539	539,192	99,042	156	3,189	2,251,986
1958-59 ..	344,490	730,863	111,741	410,896	560,091	102,280	144	2,724	2,263,229
1959-60 ..	400,702	740,035	101,641	391,628	581,231	105,966	150	2,533	2,323,886

4. **Local Production.**—Complete information regarding local production of fertilizers is not available. The number of firms engaged in the manufacture of chemical fertilizers in Australia for the year 1959–60 was 49, made up as follows:—New South Wales, 14; Victoria, 5; Queensland, 8; South Australia, 9; Western Australia, 6; and Tasmania, 7. The production of superphosphate in Australia during 1959–60 amounted to 2,380,000 tons.

§ 25. Aerial Agriculture.

During recent years, aircraft have been used for top dressing and seeding (principally of pastures) and for spraying and dusting of crops and pastures. During the year ended 31st March, 1960, the total area treated by aircraft was 3,668,828 acres—2,594,167 acres were top-dressed and/or seeded, 960,788 acres were sprayed or dusted with insecticides, fungicides or herbicides, and 113,873 acres were baited for rabbit destruction. For 1956–57 (the first year for which data are available), the total area treated was 1,465,959 acres. The following table shows details of area treated and materials used for each State for the year ended 31st March, 1960. The information was collected by the Department of Civil Aviation.

AERIAL AGRICULTURE : OPERATIONS DURING 1959–60.

Item.	Unit.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total (a)
<i>Top-dressing and Seeding—</i>								
Area treated with—								
Superphosphate	Acres.	1,765,577	370,597	800	28,564	88,910	58,005	2,312,453
Seed	„	223,352	1,200	89,864	3,890	28,304	2,480	349,090
Other	„	96,130	800	578	..	..	..	97,508
<i>Total(a)</i> ..	„	1,951,819	372,597	90,442	32,314	88,910	58,085	2,594,167
<i>Materials used—</i>								
Superphosphate	Tons.	91,773	22,976	80	1,725	4,908	4,367	125,829
Seed	lb.	271,477	24,000	164,995	19,500	140,580	162	620,714
<i>Spraying and Dusting—</i>								
Area treated with—								
Insecticides ..	Acres.	45,068	70,929	50,620	18,019	258,834	5,596	449,066
Fungicides ..	„	..	..	3,340	..	..	..	3,340
Herbicides ..	„	65,587	67,556	23,308	7,346	357,186	128	521,111
<i>Total(a)</i> ..	„	110,655	134,561	75,267	25,365	609,216	5,724	960,788
Total Area Treated(a)	„	2,066,974	616,531	165,709	57,679	698,126	63,809	3,668,828
		(b)	(c)					(b) (c)

(a) Areas treated with more than one type of material in one operation are counted once only.

(b) Includes 4,500 acres baited for rabbit destruction.

(c) Includes 109,373 acres baited for rabbit destruction.

§ 26. Ensilage.

1. **Government Assistance.**—The several State Governments devote a considerable amount of attention to the education of the farming community with regard to the value of ensilage. Monetary aid is afforded in the erection of silos, and expert advice is supplied in connexion with the design of the silos and the cutting and packing of the ensilage.

2. **Quantity Made and Stocks Held on Farms.**—Information regarding production and farm stocks of ensilage for the years ended 31st March, 1957 to 1960, are given in the following table.

ENSILAGE : PRODUCTION AND FARM STOCKS.

(Tons.)

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Total.
Production during—								
1956-57 season ..	106,521	187,220	46,255	50,900	12,644	60,454	210	464,204
1957-58 " ..	91,486	194,850	41,367	23,230	27,988	52,125	58	431,104
1958-59 " ..	243,990	301,839	73,365	68,988	76,997	63,974	410	829,563
1959-60 " ..	202,821	281,566	60,129	19,744	73,265	46,933	90	684,548
Farm Stocks, as at—								
31st March, 1957 ..	135,302	(a)	74,705	41,338	8,466	67,135	580	(a)
" " 1958 ..	134,895	(a)	77,972	20,605	16,501	52,263	205	(a)
" " 1959 ..	333,178	254,695	126,693	50,170	53,549	62,758	435	881,478
" " 1960 ..	404,777	201,584	136,317	21,773	51,807	50,671	330	867,259

(a) Not available.

The drought of 1902-3 drew increased attention to the value of stocks of ensilage, and in the following seasons there was an increase both in the number of holdings on which ensilage was made and in the quantity produced. The accumulated stocks proved of great value during the 1914 drought. In recent years, there has been an increasing tendency to produce more ensilage. From 117,000 tons in 1950-51, the quantity produced rose fairly uniformly to 464,000 tons in 1956-57 and subsequently to a record level of 830,000 tons in 1958-59. Output in 1959-60 at 685,000 tons was 17 per cent. less than the previous year.

§ 27. Agricultural Colleges and Experimental Farms.

Agricultural colleges have been established in all States except Tasmania. The primary function of these colleges is the training of students in the various phases of agricultural work and livestock husbandry. Students are required to undertake a considerable amount of practical work in addition to lectures and theory. A secondary function of the colleges is agricultural research and experimentation. To a lesser degree, they carry out extension work in the form of public field days. Upon graduation, students receive diplomas in agriculture, dairying, etc., according to the course undertaken.

Experimental farms have been set up by State Departments of Agriculture in all States. They are primarily concerned with agricultural research and experimentation, each farm concentrating on problems specific to the district in which it is located. The results of the work undertaken are passed on to farmers at field days, which are held at regular intervals, through publication in various agricultural or scientific journals and through the agricultural extension officers of the State Departments of Agriculture.

The Commonwealth Scientific and Industrial Research Organization has field stations in many parts of Australia, and sometimes undertakes research jointly with the appropriate State authorities. It also has regional laboratories in several States, conducting research into agronomic problems as they occur in each particular region. The State Departments of Agriculture study problems of particular significance within their own boundaries. In addition, the universities carry out valuable work on their experimental farms.

§ 28. Tractors on Rural Holdings.

The growth of mechanization in agriculture is indicated by the increase in the number of tractors on rural holdings from 41,943 in 1939 to 242,348 in 1960. The annual increase in numbers reached its peak in 1951-52 when over 20,000 additional tractors were enumerated on holdings. The rate of increase has declined in more recent years and over the last five years averaged only about 11,000 per annum.

The table below sets out the number of wheeled and crawler type tractors by States or the five years ended 1960.

TRACTORS ON RURAL HOLDINGS.

At 31st March—	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
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WHEELED TYPE TRACTORS.

1956	50,005	49,584	37,443	21,155	18,537	6,272	70	193	183,259
1957	52,477	52,275	39,627	22,826	19,352	6,967	83	191	193,798
1958	55,816	55,263	41,072	23,952	20,086	7,395	82	188	203,854
1959	56,453	57,818	42,709	25,116	20,989	7,838	103	193	211,219
1960	60,533	59,438	45,493	25,774	21,962	8,395	101	190	221,886

CRAWLER OR TRACK TYPE TRACTORS.

1956	4,001	1,645	5,313	3,190	3,654	745	32	10	18,590
1957	4,232	1,621	5,576	3,186	3,556	843	31	8	19,053
1958	4,437	1,652	6,506	3,336	3,877	974	38	7	20,827
1959	4,493	1,684	6,998	3,416	3,996	968	38	7	21,600
1960	4,535	1,730	6,313	3,191	3,650	997	40	6	20,462

TOTAL TRACTORS.

1956	54,006	51,229	42,756	24,345	22,191	7,017	102	203	201,849
1957	56,709	53,896	44,873	26,012	22,908	7,810	114	199	212,521
1958	60,253	56,915	47,578	27,288	23,963	8,369	120	195	224,681
1959	60,946	59,502	49,707	28,532	24,985	8,806	141	200	232,819
1960	65,068	61,168	51,806	28,965	25,612	9,392	141	196	242,348

§ 29. Number and Area of Rural Holdings and Employment Thereon.

1. Number and Area.—A holding in Australia has been defined by statisticians on a more or less uniform basis and discrepancies which exist are not of sufficient importance to vitiate comparisons. For the purpose of these statistics, a holding may be defined as land of one acre or more in extent, used in the production of agricultural produce, the raising of livestock or the products of livestock.

There are considerable fluctuations from time to time in the numbers of very small holdings and it is very difficult to determine in some cases whether or not they are rural holdings within the definition.

In addition, in the very dry parts, such as the far west of New South Wales and Queensland and the remoter parts of South Australia and Western Australia, there are large areas of marginal lands sporadically occupied under short-term lease or other arrangement, and the areas so occupied tend to fluctuate with the seasons. Similarly, there are rugged areas in the mountain country of some States which are also occasionally occupied.

The following table shows the recorded number and area of the holdings in each State for the seasons 1955–56 to 1959–60.

RURAL HOLDINGS : NUMBER AND AREA.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
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NUMBER OF RURAL HOLDINGS.

1955–56 ..	77,855	69,528	43,459	28,585	21,323	11,647	229	222	252,848
1956–57 ..	77,812	69,509	43,292	27,936	21,385	11,538	230	223	251,925
1957–58 ..	78,120	69,590	43,457	27,971	21,593	11,389	230	225	252,575
1958–59 ..	77,857	69,770	43,290	28,105	21,563	11,374	243	221	252,423
1959–60 ..	77,499	69,778	42,912	28,527	21,832	11,202	268	224	252,242

RURAL HOLDINGS : NUMBER AND AREA—*continued.*

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
TOTAL AREA OF RURAL HOLDINGS. (^{'000} ACRES.)									
1955-56 ..	172,255	37,857	367,464	149,965	229,734	6,628	160,153	389	1,124,445
1956-57 ..	172,411	37,659	368,689	149,932	232,689	6,508	168,447	390	1,136,725
1957-58 ..	173,278	37,822	368,833	152,045	236,667	6,547	167,210	392	1,142,794
1958-59 ..	172,978	37,755	370,240	152,312	238,264	6,573	156,897	381	1,135,400
1959-60 ..	172,724	37,735	371,373	155,437	244,619	6,512	158,806	382	1,147,585

2. *Special Tabulation Relating to Rural Holdings.*—(i) *Classification by Size.* Some of the information obtained from the 1955-56 Agricultural and Pastoral Census was classified by size, and the results of these tabulations are shown in detail in *Primary Industries, Part I.—Rural Industries*, Bulletin No. 51, and in summarized form in Official Year Book No. 44, page 913. Similar tabulations are being undertaken for 1959-60, but the results are not yet available.

(ii) *Classification by Type.* An experimental classification of holdings by type was carried out for New South Wales for 1955-56 in conjunction with the classification by size referred to above. An outline of the methods used and the results obtained are shown on page 914 of Official Year Book No. 44. The methods used in the 1955-56 experimental classification have been used as the basis for an Australia-wide classification of holdings by type being carried out for the 1959-60 season in conjunction with the classification of certain characteristics by size for that year.

3. *Employment on Rural Holdings.*—The following table shows, for each State, the recorded number of males working on rural holdings as at 31st March, 1960. Additional particulars relating to the number of males employed in agriculture are available up to 1941-42 in Official Year Book No. 36, page 852, and previous issues. Similar details for later years are not available.

MALES(a) ENGAGED ON RURAL HOLDINGS AT 31st MARCH, 1960.

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.(b)	A.C.T.	Aust.
<i>Permanent Males—</i>									
Owners, Lessees or Share-farmers ..	(c)	(c)	44,707	23,022	20,231	7,888	192	167	(c)
Relatives of Owner, Lessee or Share-farmer over 14 years of age, not receiving wages or salary ..			3,452	2,690	1,433	197	28	5	
Employees, including Managers and Relatives working for wages or salary ..			18,401	8,059	8,916	4,457	626	122	
<i>Total Permanent Males ..</i>			66,560	33,771	30,580	12,542	846	294	
<i>Temporary Males ..</i>			14,397	17,308	4,713	5,196	1,533	47	
<i>Total Males ..</i>			80,957	51,079	35,293	17,738	2,379	341	

(a) Details for females not available.

(b) 1,361 male full-blood aboriginals employed are included as temporary employees.

(c) Not available.

The next table shows for Australia as a whole the number of persons working full-time on rural holdings as at 31st March of the five years 1954 to 1958.

PERSONS ENGAGED ON RURAL HOLDINGS, AUSTRALIA.(a)

Particulars.	As at 31st March—				
	1954.(b)	1955(b).	1956.	1957.	1958.
Permanent—					
Males—					
Owners, Lessees or Share-farmers ..	241,149	240,879	245,621	244,111	241,247
Relatives of Owner, Lessee or Share-farmer over 14 years of age, not receiving wages or salary ..	22,736	23,529	21,232	21,734	21,535
Employees, including managers and relatives working for wages or salary ..	93,748	91,479	89,334	90,599	91,308
Total, Males	357,633	355,887	356,187	356,444	354,090
" Females	49,782	46,656	42,104	41,373	39,763
Total Permanent ..	407,415	402,543	398,291	397,817	393,853
Temporary—					
Total, Males	86,644	87,400	84,607	86,267	93,142
" Females	8,365	9,238	9,638	11,324	12,986
Total Temporary ..	95,009	96,638	94,245	97,591	106,128
Grand Total	502,424	499,181	492,536	495,408	499,981

(a) Australian totals for 1959 and 1960 are not available.

(b) Excludes Northern Territory.

4. **Salaries and Wages Paid to Employees on Rural Holdings.**—Particulars of salaries and wages paid to employees (including amounts paid to contractors) working full-time on rural holdings have been collected uniformly in all States from 1949–50. Details are set out below for each State for the year 1959–60, and for Australia as a whole for the years 1954–55 to 1957–58.

RURAL HOLDINGS : SALARIES AND WAGES(a) PAID TO EMPLOYEES, 1959-60.
(£'000.)

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Permanent—Males ..	(b)	(b)	13,582	5,629	6,022	3,206	501	129	(b)
Females ..			1,108	237	49	72	38	7	
Temporary(c)—Males ..			19,208	4,870	5,091	1,769	343	100	
Females ..			245	348	43	215	33	3	
Total			34,143	11,084	11,205	5,262	915	239	

(a) Includes value of keep.

(b) Not available.

(c) Includes amounts paid to contractors.

RURAL HOLDINGS : SALARIES AND WAGES(a) PAID TO EMPLOYEES, AUSTRALIA.(b)
(£'000.)

Particulars.	1954-55.(c)	1955-56.	1956-57.	1957-58.
Permanent—Males	53,951	55,752	58,707	63,397
Females	2,468	2,456	2,456	2,793
Temporary(d)—Males	53,855	53,200	54,431	59,982
Females	1,323	1,476	1,498	1,656
Total	111,597	112,884	117,092	127,828

(a) Includes value of keep.
(c) Excludes Northern Territory.(b) Australian totals for 1958-59 and 1959-60 are not available.
(d) Includes amounts paid to contractors.

5. Persons (of all ages) Residing Permanently on Holdings.—Particulars of persons (of all ages) residing permanently on rural holdings have been collected by all States at the annual Agricultural and Pastoral Census each year since 1954. Details for each State as at 31st March, 1960, and for Australia as a whole for the years 1955 to 1958, are shown below.

RURAL HOLDINGS : PERSONS (OF ALL AGES) RESIDING PERMANENTLY ON HOLDINGS AT 31st MARCH, 1960.

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Males ..	} (a) {	145,056	106,430	58,889	47,878	27,788	1,134	530	} (a)
Females ..		126,555	85,158	52,320	39,025	24,475	525	466	
Total ..		271,611	191,588	111,209	86,903	52,263	1,659	996	

(a) Not available.

RURAL HOLDINGS : PERSONS (OF ALL AGES) RESIDING PERMANENTLY ON HOLDINGS, AUSTRALIA.(a)

Particulars.					As at 31st March—			
					1955.	1956.	1957.	1958.
Males ..	..	..	..	..	549,734	557,274	563,894	560,196
Females ..	..	..	..	..	462,163	469,805	475,587	474,333
Total ..	..	..	..	..	1,011,897	1,027,079	1,039,481	1,034,529

(a) Australian totals for 1959 and 1960 are not available.

CHAPTER XXIII.

PASTORAL PRODUCTION.

NOTE.—All values of Australian oversea trade shown throughout this chapter are expressed as f.o.b., Australian currency, port of shipment, except where otherwise indicated. All export tables relate to exports of Australian produce only.

For greater detail on the subjects dealt with in this chapter, see the annual bulletins *Primary Industries, Part I.—Rural Industries* and *Part II.—Non-Rural Industries and Value of Production* published by this Bureau. For advance information on these subjects, the following mimeograph statistical bulletins should be consulted—*Livestock Numbers* (annual), *Meat Industry* (monthly), *Value of Production and Indexes of Price and Quantum of Farm Production* (annual), *Wool Production* (annual), *Wool Production and Utilization* (annual), and *Size Classification of Rural Holdings*, 1955–56. The annual mimeograph *Report on Food Production and the Apparent Consumption of Foodstuffs and Nutrients in Australia* contains details of the production, distribution and apparent consumption of foodstuffs obtained from the pastoral industry. Current information on meat and wool production is available in the *Monthly Review of Business Statistics* and the *Digest of Current Economic Statistics* (monthly).

§ 1. Initiation and Growth of the Pastoral Industry.

1. *Livestock Numbers.*—A detailed account of the various enumerations of livestock in Australia made prior to 1860 was given in previous issues of the Year Book. Since 1860, annual enumerations have been made, based, with few exceptions, on actual collections made through the agency of the State police or by post. Particulars concerning the numbers of each of the principal kinds of livestock in Australia at decennial intervals from 1860 to 1950, and from 1956 onwards in single years, are given in the following table, and are shown continuously on the graph on page 965.

LIVESTOCK : AUSTRALIA.

('000.)

Year.	Horses.	Cattle.	Sheep.	Pigs.	Year.	Horses.	Cattle.	Sheep.	Pigs.
1860 ..	432	3,958	20,135	351	1940 ..	1,699	13,080	119,305	1,455
1870 ..	717	4,276	41,594	543	1950 ..	1,057	14,640	112,891	1,123
1880 ..	1,069	7,527	62,184	816					
1890 ..	1,522	10,300	97,881	891	1956 ..	770	16,457	139,124	1,166
1900 ..	1,610	8,640	70,603	950	1957 ..	737	17,257	149,802	1,325
1910 ..	2,166	11,745	98,066	1,026	1958 ..	694	16,892	149,315	1,423
1920 ..	2,416	13,500	81,796	764	1959 ..	671	16,257	152,685	1,289
1930 ..	1,793	11,721	110,568	1,072	1960 ..	640	16,503	155,174	1,424

While livestock numbers (particularly sheep) have increased substantially since 1860, marked fluctuations have taken place during the period, mainly on account of droughts which have from time to time left their impression on the pastoral history of Australia. These occurred in 1868, 1877, 1883–4, 1892, 1893, 1895, 1901–2, 1912, 1914, 1918, 1919, 1922–23, 1925–26, 1927–28, 1929–30, 1940–41 and 1944–45 to 1946–47.

The years in which the numbers of livestock attained their maxima are as follows:—Horses, 1918 (2,527,000); cattle, 1957 (17,257,000); sheep, 1960 (155,174,000); and pigs, 1941 (1,797,000).

The distribution throughout Australia of beef cattle, dairy cattle, sheep and pigs as at 31st March, 1955, is shown in the maps on pages 909–12 of Official Year Book No. 43.

The numbers of horses, beef cattle and sheep in each State and Territory are shown later in this chapter; similar information for dairy cattle and pigs appears in Chapter XXIV.—Farmyard, Dairy and Bee Products.

2. **Carrying Capacity of Pastoral Holdings.**—The carrying capacity of pastoral holdings has been increased in recent years, due in some measure to the succession of good seasons experienced since 1946 (with the exception of the 1957–58 season, when prevailing dry conditions caused a slight decline in cattle and sheep numbers). Other important factors contributing to the progressive increase over this period have been the increased attention to pasture improvement and the reduction of rabbit infestation.

There was a considerable decline in the number of rabbits following the introduction in 1950 of the disease myxomatosis, which spread rapidly. The number of rabbits has also been kept at a low level in recent years by the use of poison baits, etc.

Statistics of the area under sown grasses and clovers which have been collected on a uniform basis in all States since 1952–53 reveal that the area sown has been considerably increased. In 1959–60, the area under sown grasses and clovers (excluding native grasses) totalled 33.3 million acres, a decrease of 0.3 million acres (1 per cent.) compared with 1958–59 but an increase of 12.6 million acres (61 per cent.) over 1952–53, the earliest year for which this comparison is available. In recent years, the sowing and top-dressing of pastures has been facilitated by the increasing use of aircraft in these operations, an area of 2.6 million acres being sown and/or top-dressed in the year ended March, 1960.

3. **Size Classification of Cattle Herds and Sheep Flocks.**—A special series of tabulations relating to rural holdings in Australia was compiled for 1955–56 and published in full detail in a series of mimeographed bulletins, *Size Classification of Rural Holdings, 1955–56*. Condensed tables also appear in *Primary Industries, Part I*, Bulletin No. 51. The tables relating to beef and dairy cattle and sheep show classifications according to size of herd or flock, area of holding, area of wheat for grain and area of sown pastures. Similar details are being compiled for 1959–60, but details are not yet available.

4. **Value of Pastoral Production.**—(i) *Gross, Local and Net Values, 1959–60.* Values of pastoral production for each State are shown for 1959–60 in the following table. Further details of the source of the information and an explanation of the terms used in this compilation will be found in Chapter XXX.—Miscellaneous. Maintenance costs have not been computed in all States and depreciation has not been deducted; consequently the net values are inflated to the extent of these costs.

GROSS, LOCAL AND NET VALUES OF PASTORAL PRODUCTION, 1959-60.

(£'000.)

State.	Gross Production Valued at Principal Markets.	Marketing Costs.	Gross Production Valued at Farm.	Value of Materials used in Process of Production.	Net Value of Production. (a)
New South Wales	229,653	17,840	211,813	(b) 13,433	198,380
Victoria	160,138	14,723	145,415	9,785	135,630
Queensland	116,998	9,912	107,086	7,202	99,884
South Australia	61,675	4,178	57,497	7,430	50,067
Western Australia	50,128	3,642	46,486	6,827	39,659
Tasmania	13,382	822	12,560	4,714	7,846
Northern Territory	4,544	718	3,826	..	3,826
Australian Capital Territory ..	1,076	72	1,004	81	923
Australia	637,594	51,907	585,687	49,472	536,215

(a) No deduction has been made for depreciation and maintenance. made for costs of power, power kerosene, petrol and other oils.

(b) No allowance has been

(ii) *Net Values, 1955-56 to 1959-60.* The net value of pastoral production by States and the net value per head of population for the years 1955-56 to 1959-60 are shown below.

NET VALUE OF PASTORAL PRODUCTION.(a)

Year.	N.S.W.(b)	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.(c)
NET VALUE. (£'000.)							
1955-56 ..	163,287	104,820	86,313	44,625	36,578	(b) 7,282	446,780
1956-57 ..	231,674	129,883	112,566	62,093	47,343	(b) 10,666	597,681
1957-58 ..	157,679	115,970	80,301	44,863	36,947	(b) 8,078	447,247
1958-59 ..	162,366	110,392	90,760	38,425	30,582	6,652	443,622
1959-60 ..	198,380	135,630	99,884	50,067	39,659	7,846	536,215

NET VALUE PER HEAD OF POPULATION.
(£ s. d.)

1955-56 ..	46 6 7	40 17 4	63 16 3	53 9 6	54 13 6	22 16 3	47 19 2
1956-57 ..	64 11 4	49 3 11	81 10 10	72 1 9	69 3 3	32 14 1	62 13 8
1957-58 ..	43 2 1	42 16 9	57 4 6	50 12 9	52 17 10	24 3 7	45 17 10
1958-59 ..	43 11 6	39 15 5	63 12 11	42 6 1	42 18 9	19 9 10	44 11 5
1959-60 ..	52 6 2	47 11 5	68 19 5	53 12 7	54 13 10	22 11 8	52 14 7

(a) No deduction has been made for depreciation and maintenance. Excludes payments to wool-growers of profits from the war-time wool disposal plan. (b) No allowance has been made for costs of power, power kerosene, petrol and other oils. (c) Includes Northern Territory and Australian Capital Territory.

5. Indexes of Quantum and Price of Pastoral Production, 1955-56 to 1959-60.—The quantum indexes relate to gross output of farm products valued at constant prices. The quantities of each farm product produced each year have been re-valued at the unit gross value for the period 1936-37 to 1938-39. The price indexes relate to average "prices" of farm products realized in the principal markets of Australia. Average quantities of each product marketed in the period, 1946-47 to 1950-51 have been used as fixed weights. For further details of the methods of calculating these indexes and of the weights used, see Chapter XXX.—Miscellaneous.

INDEXES OF QUANTUM(a) AND PRICE OF PASTORAL PRODUCTION:
AUSTRALIA.

(Base: Average 3 years ended June, 1939 = 100.)

Particulars.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
<i>Quantum(a) produced—</i>					
Wool	146	164	148	164	172
Other products	123	128	134	152	153
<i>Total Pastoral</i>	136	148	142	159	163
<i>Total per Head of Population</i>	100	106	100	109	110
<i>Price—</i>					
Wool	468	607	473	370	440
Other products	424	427	377	435	500
<i>Total Pastoral</i>	451	536	435	396	464

(a) Index of value at constant prices, i.e., quantities revalued at average unit values of base years, 1936-37 to 1938-39.

§ 2. Horses.

1. **Distribution throughout Australia.**—About 80 per cent. of the total number of horses in Australia are in the States of New South Wales, Queensland and Victoria. In the following table, figures are shown for each State and Territory for the years 1956 to 1960.

HORSES: NUMBER.
(‘000.)

Year.	N.S.W.	Vic.	Q’land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
1956 ..	247	119	261	44	46	15	37	1	770
1957 ..	235	108	255	41	45	14	38	1	737
1958 ..	221	98	243	35	44	13	39	1	694
1959 ..	214	91	240	33	41	12	39	1	671
1960 ..	204	81	234	30	41	11	38	1	640

The number of horses in Australia reached its maximum during 1918, when a total of 2,527,149 was recorded. The United States of America recorded its highest number in the same year and Canada in 1921. The number in Australia has declined considerably since 1918 owing to the mechanization of transport and farming. During the period 1918 to 1960, the decrease in numbers has averaged 45,000 per annum.

A graph showing the number of horses in Australia from 1860 onwards appears on page 965.

The percentage distribution of the number of horses in each State and Territory for 1960 was:—New South Wales, 32; Victoria, 13; Queensland, 36; South Australia, 5; Western Australia, 6; Tasmania, 2; and Northern Territory, 6.

2. **Oversea Trade in Horses.**—The export of horses from Australia during the early years of this century was fairly considerable, averaging about 15,000 head per annum between 1901 and 1920, exclusive of those used for war purposes during the 1914–18 War, but has since declined. The 1959–60 exports amounted to 1,994 horses, valued at £635,755 (Australian produce 1,927 for £487,000; re-exports 67 for £149,000), made up of horses for breeding (111 valued at £131,506), horses for racing (555 valued at £283,678, shipped principally to New Zealand) and horses for other purposes (1,328 valued at £220,571, shipped principally to Hong Kong and India).

The few horses imported into Australia are mainly stud animals from the United Kingdom and racehorses from New Zealand. The total number imported in 1959–60 was 567 valued at £557,846.

§ 3. Cattle.

1. **Purposes for which Raised.**—Cattle-raising is carried out in all the States, the main object in certain districts being the production of stock suitable for slaughtering purposes, and in others the raising of profitable dairy herds. The great impetus which the development of the export trade in Australian butter gave to the dairying industry led to a considerable increase in numbers and an improvement in quality of the dairy herds in the coastal districts of Victoria, New South Wales and southern Queensland in particular, the portion of Australia in the temperate zone which is best adapted to this industry. On the other hand, beef cattle are more widely distributed, particularly in the eastern States, and are raised in areas unsuitable for dairy cattle, such as the tropical area of northern Queensland, the Northern Territory, and the Kimberley district in the north of Western Australia.

2. **Distribution throughout Australia.**—Until 1880, New South Wales was the principal cattle-raising State, but in that year Queensland took the leading position, which it has since maintained. There was a very rapid increase in the number of cattle in Australia up to the year 1894, when 12,312,000 head were depastured. The effects of droughts and the ravages of tick fever subsequently reduced the number to 7,063,000 in 1902. Following the disastrous drought which terminated in the latter year, the herds were gradually built up,

and, despite recurring droughts, they continued to increase up to 14,441,000 in 1921. Numbers fluctuated in succeeding years, but from 1947 to 1957 there was a general upward movement to a record level of 17,257,000 in the latter year. Drought conditions together with a very high level of slaughtering in subsequent years have resulted in a reduction in numbers since then, but some recovery was made in 1960 when they increased to 16,503,000. A graph showing the number of cattle in Australia from 1860 onwards appears on page 965.

The numbers of cattle (beef and dairy) in the several States and Territories in each year 1956 to 1960, compared with the averages of the three-year periods ended 1939, 1949, and 1959 are shown below.

CATTLE: NUMBER.

('000.)

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Aust.
Average for three years ended—									
1939 ..	3,040	1,861	6,002	324	767	260	882	8	13,144
1949 ..	3,122	2,153	5,971	443	830	244	1,006	9	13,778
1959 ..	3,770	2,722	7,177	598	985	367	1,173	10	16,802
Year—									
1956 ..	3,678	2,616	7,331	566	897	332	1,028	9	16,457
1957 ..	3,911	2,765	7,462	621	957	354	1,176	11	17,257
1958 ..	3,736	2,750	7,187	597	997	371	1,244	10	16,892
1959 ..	3,664	2,651	6,884	576	1,000	374	1,099	9	16,257
1960 ..	3,840	2,624	7,012	500	1,030	375	1,111	11	16,503

Although the proportion was not as high as it has been in some previous years, Queensland was carrying almost 43 per cent. of the cattle in Australia in 1960. The percentage in each State and Territory during that year was:—New South Wales, 23; Victoria, 16; Queensland, 43; South Australia, 3; Western Australia, 6; Tasmania, 2; and Northern Territory, 7.

Maps showing the distribution of beef and dairy cattle in Australia have been published in previous issues of the Official Year Book (see No. 43, pp. 909–10, for 1955; No. 39, pp. 905–6, for 1948; No. 34, pp. 453–4, for 1938–39; and No. 22, p. 660, for 1924–25).

3. Classification of Cattle According to Purpose.—Of the total number of cattle in Australia in 1960, 11,626,000 or 70 per cent. were classified as beef cattle. The numbers classified as beef cattle in the several States and Territories, during the years 1956 to 1960, compared with averages for the three-year periods ended 1949 and 1959, are shown in the following table:—

BEEF CATTLE: NUMBER.

('000.)

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Aust.
Average for three years ended—									
1949 ..	1,832	686	4,592	171	604	100	1,006	6	8,997
1959 ..	2,462	1,023	5,882	341	763	165	1,173	7	11,816
Year—									
1956 ..	2,341	954	5,946	302	673	148	1,028	6	11,398
1957 ..	2,577	1,044	6,087	356	733	158	1,176	8	12,139
1958 ..	2,429	1,026	5,917	338	771	167	1,244	6	11,898
1959 ..	2,382	998	5,643	328	784	171	1,099	6	11,411
1960 ..	2,562	946	5,757	260	814	168	1,111	8	11,626

Particulars relating to dairy cattle numbers will be found in Chapter XXIV.—Farm-yard, Dairy and Bee Products.

4. **Size Classification of Cattle Herds.**—See § 1, para. 3, page 948 for information available.

5. **Comparison with other Countries.**—The following table shows the number of cattle in Australia and in some of the principal cattle-raising countries of the world for the years 1936-40 and at the latest available date. The figures relate to areas embraced by post-war boundaries, but do not in all cases cover identical areas for the two periods.

CATTLE: NUMBER IN VARIOUS COUNTRIES.

(Sources: Publications of United States Department of Agriculture and of Food and Agriculture Organization of United Nations.)

('000.)

Country.	Average, 1936-40.(a)	Year and Month.	Number.
India(b)	180,000	1956 (May) ..	203,629
United States of America	66,706	1960 (January) ..	101,520
U.S.S.R.	59,800	1960 (January) ..	74,100
Brazil	40,807	1958 (December) ..	71,420
China	25,600	1957 (December) ..	44,600
Argentina	33,762	1960 (June) ..	41,000
Pakistan(b)	33,000	1956 (December) ..	37,569
Mexico	11,716	1960 (Spring) ..	21,000
Ethiopia	18,000	1960 (estimate) ..	20,000
France	15,504	1959 (October) ..	18,671
Australia	13,285	1960 (March) ..	16,503
Colombia	8,010	1959 (October) ..	15,100
Turkey(b)	8,611	1959 (November) ..	13,479
Germany, Federal Republic of	12,114	1959 (December) ..	12,465
Union of South Africa	11,636	1959 (August) ..	12,000

(a) In some cases census for a single year, and in others an average for two to four years.
(b) Includes buffaloes.

6. **Imports and Exports of Cattle.**—The products of the cattle-raising industry figure largely in the export trade of Australia, although until recently the export of live cattle has never been large. In 1958-59, most of the cattle exported went to the Philippines for slaughter. However, in 1959-60, 10,343 head valued at £239,426 were exported to Hong Kong, while only 929 head, valued at £41,842 were exported to the Philippines. The number of cattle imported is small, and as in the case of horses, consists mainly of valuable animals for stud purposes. Since June, 1958, an embargo has been imposed on the import of cattle in order to prevent the possible introduction of the disease, blue-tongue. Details for the years 1955-56 to 1959-60 are shown in the following table:—

CATTLE: IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.	
	No.	Value.	No.	Value.
		£'000.		£'000.
1955-56	304	229	8,025	475
1956-57	145	123	18,360	754
1957-58	272	174	23,933	932
1958-59	37	62	13,900	493
1959-60 .. .. .	..	..	13,602	456

The average value per head of the cattle imported during the last five years was £776 while the average value per head of the cattle exported during the same period was £40.

7. **Cattle Slaughtered.**—The numbers of cattle slaughtered during each of the years ended June, 1956 to 1960, compared with averages for the three-year periods ended June, 1939, 1949 and 1959, are shown in the following table:—

CATTLE (INCLUDING CALVES) SLAUGHTERED.

('000.)

Period.	Slaughterings passed for Human Consumption.									Total Slaughtering including Boiled Down.
	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.	
Average for three years ended—										
1938–39 ..	1,169	881	1,178	163	131	49	5	3	3,579	3,628
1948–49 ..	1,094	759	1,119	168	146	42	14	4	3,346	3,378
1958–59 ..	1,745	1,313	1,689	274	216	116	24	11	5,388	5,463
Year—										
1955–56 ..	1,547	1,023	1,502	227	191	88	25	9	4,612	4,675
1956–57 ..	1,591	1,139	1,641	252	192	102	25	10	4,952	5,017
1957–58 ..	1,742	1,404	1,541	282	216	118	24	12	5,339	5,411
1958–59 ..	1,894	1,397	1,883	287	249	128	24	10	5,872	5,960
1959–60 ..	1,499	1,277	1,527	238	243	145	24	9	4,962	5,024

8. **Production of Beef and Veal.**—Details of the production of beef and veal during each of the years ended June, 1956 to 1960, compared with averages for the three-year periods ended June, 1939, 1949 and 1959 are shown in the following table:—

PRODUCTION OF BEEF AND VEAL (CARCASS WEIGHT): AUSTRALIA.

('000 tons.)

Period.	N.S.W.	Vic.	Qld.	S. Aust.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Average for three years ended—									
1938–39 ..	181	123	199	26	28	10	1	1	569
1948–49 ..	160	106	206	27	30	9	3	1	542
1958–59 ..	248	176	305	41	41	19	5	2	837
Year—									
1955–56 ..	222	139	292	38	38	15	5	2	751
1956–57 ..	236	159	317	40	38	18	5	2	815
1957–58 ..	233	181	270	41	39	20	5	2	791
1958–59 ..	275	189	328	42	45	20	5	2	906
1959–60 ..	217	159	267	33	46	23	5	2	752

9. **Consumption of Beef and Veal.**—Since the 1939–45 War, consumption per head of beef and veal has been at a somewhat lower level than in the pre-war period (an average of 144 lb. carcass equivalent per head per annum for the three years ended 1938–39). For the three years 1946–47 to 1948–49, the average annual consumption per head was 112.5 lb. or 22 per cent. below the immediate pre-war level. There was a considerable recovery during the ensuing years to a post-war peak of 132.7 lb. per head in 1956–57. With the buoyant overseas market for beef and the high prices ruling in Australia, during the following three years consumption per head fell substantially and in 1959–60 amounted to only 100.0 lb. consisting of 97.5 lb. of carcass meat and 2.5 lb. (carcass equivalent) of canned meat. There was a marked substitution of mutton and lamb for beef in Australia during this period.

The figures quoted in the paragraph above include the consumption of canned beef and veal, and differ on that account from the figures shown in the last column of the next table.

In the following table, details of the production and disposal of beef and veal are shown for the years 1955-56 to 1959-60, compared with the averages for the three years ended 1938-39, 1948-49 and 1958-59.

**PRODUCTION AND DISPOSAL OF BEEF AND VEAL (CARCASS WEIGHT):
AUSTRALIA.**

('000 tons.)

Period.	Net Change. in Stocks.	Production.	Exports. (a)	For Canning.	Apparent Consumption in Australia.	
					Total.	Per Head per Annum.
Average for three years ended—						lb.
1938-39	(b)	569	121	18	430	140.3
1948-49	+ 1	542	101	67	373	109.1
1958-59	+ 5	837	209	85	538	123.8
Year—						
1955-56	- 7	751	163	100	495	119.1
1956-57	+ 4	815	177	85	549	128.9
1957-58	+ 4	791	155	88	544	125.1
1958-59	+ 8	906	296	80	522	117.5
1959-60	- 11	752	266	55	442	97.5

(a) Includes carcass equivalent of boneless beef exported and ships' stores. (b) Not available.

10. Exports of Frozen Beef and Veal.—The quantity and value of frozen beef and veal exported in each year 1955-56 to 1959-60 are shown in the following table. The figures in this table represent actual weight shipped, not carcass equivalent.

EXPORTS OF FROZEN AND CHILLED BEEF AND VEAL: AUSTRALIA.

Year.	Exports of Frozen and Chilled Beef.		Exports of Frozen Veal.	
	Quantity.	Value.	Quantity.	Value.
	'000 lb.	£'000.	'000 lb.	£'000.
1955-56	318,059	22,936	4,689	495
1956-57	331,253	22,863	3,391	408
1957-58	276,607	20,961	5,397	609
1958-59	499,371	54,154	10,869	1,331
1959-60	414,749	54,568	6,827	897

Prior to 1959-60, the largest purchaser of Australian beef and veal was the United Kingdom. Exports to the United States of America have been growing in recent years, and in 1959-60 exceeded those to the United Kingdom. The total value of beef and veal exports to these two countries in 1959-60 were: United States of America, £29,944,000; United Kingdom, £20,192,000.

The export of frozen meat from Australia dates from about 1881, but because of the preference overseas for chilled beef, the Australian beef industry was at a serious disadvantage until investigations proved that beef could be successfully transported from Australia to the United Kingdom in a chilled condition. Trial shipments began in 1932-33 and exports in subsequent years increased to a maximum of 58,963,000 lb. in 1938-39. However, the 1939-45 War seriously affected the export trade in chilled beef, which declined to a negligible amount after 1939-40. In 1959-60, chilled beef exports were 2,926,000 lb. valued at £326,000, whilst frozen beef exports amounted to 411,823,000 lb. valued at £54,242,000.

Both quantity and value of exports of beef and veal reached a record level during 1958-59 and, while there was some reduction in quantity during 1959-60, the value remained at about the same level in that year.

While beef and veal were previously shipped largely in carcass form, there has been in recent years a substantial increase in the amount of boneless beef exported. In 1958-59 and 1959-60, the quantity of boneless beef shipped exceeded that exported in carcass form. The trade in boneless beef has been developed principally with the United States of America.

11. Research.—*Cattle and Beef Research Scheme.* In May, 1960, legislation was enacted to provide for a Commonwealth scheme for an expanded programme of research into the scientific, technical and economic problems connected with the Australian beef industry.

Funds are raised by a levy on all cattle weighing over 200 lb. dressed which are slaughtered for human consumption, and the Commonwealth provides a matching contribution on a £1 for £1 basis to meet expenditure on new research. The scheme is administered by the Australian Cattle and Beef Research Committee, whose main function is to formulate plans for projects on which the funds may be expended. The actual research work is undertaken by existing bodies such as the universities, C.S.I.R.O. and State Departments of Agriculture.

The three Acts covering research arrangements are the Cattle and Beef Research Act 1960, Cattle Slaughter Levy Act 1960 and Cattle Slaughter Levy Collection Act 1960.

At its first meeting in June, 1960, the Committee agreed to recommend to the Minister for Primary Industry that the levy be fixed at the maximum provided in the Act, namely 2s. per head. The levy was operative from 1st July, 1960.

§ 4. Sheep.

1. Movement in Sheep Numbers in Australia.—Fluctuations in the number of sheep recorded in Australia for each year from 1860 onwards may be seen from the graph on page 965. Up to 1945, there were five marked periods of decline, but the losses were made up rapidly. In each of the years 1925 to 1945, the sheep flocks exceeded 100 million, reaching 125.2 million in 1942. During the three years ended 1947, however, a sharp decline to 95.7 million occurred. This was largely attributable to the severe drought conditions experienced during 1944, 1945 and 1946. The passing of the drought and consequent re-stocking resulted in a steady increase in sheep numbers, and although dry seasonal conditions were responsible for a slight decline at 31st March, 1958, a record level of 155.2 million was reached at 31st March, 1960.

The following table shows the approximate movement in sheep numbers in Australia in each year 1955-56 to 1959-60.

SHEEP AND LAMBS : ANALYSIS OF MOVEMENT IN NUMBERS, AUSTRALIA.
(‘000.)

Season.	Lambs Marked.	Excess of Exports.	Sheep and Lambs Slaughtered.	Estimated Number of Deaths from Disease, Drought, etc.(a)	Number at 31st March.	Annual Net Increase (+) or Decrease (—)
1955-56.. ..	36,914	97	21,180	7,362	139,124	+ 8,275
1956-57.. ..	39,902	122	19,503	9,599	149,802	+ 10,678
1957-58.. ..	(b) 36,850	120	24,417	12,800	149,315	— 487
1958-59.. ..	38,748	136	26,963	8,279	152,685	+ 3,370
1959-60.. ..	44,150	226	32,084	9,351	155,174	+ 2,489

(a) Balance figure.

(b) Excludes Northern Territory prior to 1957-58.

2. **Distribution throughout Australia.**—With the exception of a short period in the early eighteen-sixties, when the flocks of Victoria outnumbered those of New South Wales, the latter State has occupied the premier position in sheep-raising, depasturing nearly one-half of the sheep of Australia.

Maps showing the distribution of sheep in Australia have been published in previous issues of the Official Year Book (see No. 43, p. 911, for 1955; No. 39, p. 907, for 1948; No. 34, p. 432, for 1938–39; and No. 22, p. 659, for 1924–25).

The numbers of sheep in the several States and Territories at 31st March of each year 1956 to 1960 compared with average numbers for the three-year periods ended 1939, 1949 and 1959 are shown in the following table:—

SHEEP : NUMBER.

('000.)

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Australia.
Average for three years ended—									
1939 ..	51,202	17,845	21,889	8,916	8,972	2,460	23	251	111,558
1949 ..	46,525	17,900	16,442	8,793	10,368	2,060	24	227	102,339
1959 ..	67,006	26,615	22,537	15,285	15,609	3,259	25	265	150,601
Year—									
1956 ..	62,988	23,343	22,116	13,585	14,128	2,673	33	258	139,124
1957 ..	67,670	25,831	23,190	14,984	14,887	2,943	30	267	149,802
1958 ..	65,410	27,090	22,274	15,236	15,724	3,298	27	256	149,315
1959 ..	67,936	26,925	22,148	15,634	16,215	3,536	19	272	152,685
1960 ..	71,000	26,597	23,332	14,025	16,412	3,494	15	299	155,174

Except when affected by drought, the relative numbers of sheep in the different States have remained fairly constant in recent years. Numbers in South Australia and Victoria were adversely affected by very dry conditions during 1959–60.

The percentage distribution in 1960 was:—New South Wales, 46; Victoria, 17; Queensland, 15; South Australia, 9; Western Australia, 11; and Tasmania, 2.

3. **Classification of Sheep According to Age, Sex and Breed.**—In the following table, numbers of sheep in Australia are classified according to age and sex at 31st March of the years 1956 to 1960.

SHEEP : AGE AND SEX, AUSTRALIA.

('000.)

Description.	1956.	1957.	1958.	1959.	1960.
Rams, 1 year and over ..	1,721	1,830	1,883	1,919	1,898
Breeding ewes (including ewes intended for mating) ..	62,483	66,844	66,059	69,470	68,455
Other ewes, 1 year and over ..	7,553	8,447	9,795	8,295	9,276
Wethers, 1 year and over ..	39,142	41,573	43,688	43,578	43,046
Lambs and hoggets, under 1 year ..	28,225	31,108	27,890	29,423	32,499
Total, Sheep and Lambs.	139,124	149,802	149,315	152,685	155,174

Particulars relating to the principal breeds of sheep at 31st March, 1959, the latest date for which these data are available (details are collected on a triennial basis only), are shown in the following table:—

SHEEP : PRINCIPAL BREEDS, 31st MARCH, 1959.

('000.)

Breed.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
Merino ..	52,467	11,410	21,725	13,112	14,921	325	19	245	114,224
Other recognized breeds ..	6,037	6,118	72	1,061	542	1,841	..	12	15,683
Merino comebacks(a) ..	3,408	3,422	70	312	146	466	..	2	7,826
Crossbreds(b) ..	6,024	5,975	281	1,149	606	904	..	13	14,952
Total ..	67,936	26,925	22,148	15,634	16,215	3,536	19	272	152,685

(a) Merino comeback is the progeny of a crossbred merino ewe and a merino ram, i.e., finer than half-bred.

(b) Half-bred and coarser.

4. Numbers of Sheep on Rural Holdings.—See § 1, para. 3, page 948, for information available.

5. Comparison with other Countries.—Australia has long occupied a leading position amongst the sheep-raising countries of the world in respect of the size of its flocks and the quantity and quality of wool produced. In 1959–60, Australian flocks numbered 155 million sheep, compared with an estimate of 239 million for the U.S.S.R., China, and Eastern Europe combined, about 50 million in New Zealand, and about 49 million in Argentina. The total world sheep numbers were estimated at about 917 million in 1959–60. These figures relate to woolled sheep only, non-woolled sheep accounting for about 5 per cent. of the world total of all types of sheep. Further details of sheep numbers in the principal wool producing countries of the world for 1957–58 to 1959–60 are given in the table on page 964.

6. Imports and Exports of Sheep.—As in the case of cattle, the overseas exports of live sheep from Australia are of comparatively little importance. On 27th November, 1929, the export of stud merino sheep was prohibited, except with the approval of the Minister for Primary Industry. Exports of sheep are now principally for slaughter overseas. Consignments for this purpose in recent years were made chiefly from Western Australia, to Singapore although in 1959–60 there were also substantial shipments from New South Wales to the United States of America. Since June, 1958, an embargo has been imposed on the import of sheep in order to prevent the possible introduction of the disease, blue-tongue. The following table shows the imports and exports of all sheep for the years 1955–56 to 1959–60.

SHEEP : IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.	
	No.	Value.	No.	Value.
		£'000.		£'000.
1955–56	4,437	89	101,897	332
1956–57	7,445	212	129,480	482
1957–58	2,256	'90	122,628	466
1958–59	5	1	135,720	393
1959–60 .. .. .	..	..	225,757	'805

7. **Sheep Slaughtered.**—The following table shows the numbers of sheep slaughtered in the several States during each of the years ended June, 1956 to 1960, compared with averages for the three-year periods ended June, 1939, 1949 and 1959:—

SHEEP (INCLUDING LAMBS) SLAUGHTERED.

(‘000.)

Period.	Slaughterings Passed for Human Consumption.									Total Slaughterings including Boiled Down.
	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.	
Average for three years ended—										
1938-39 ..	6,520	7,891	1,088	1,762	1,216	364	..	25	18,866	18,925
1948-49 ..	6,367	6,413	1,066	1,863	1,458	396	3	47	17,613	17,650
1958-59 ..	7,857	9,058	1,429	2,917	2,059	775	3	71	24,169	24,278
Year—										
1955-56 ..	6,840	7,860	1,186	2,358	1,796	645	2	73	20,760	20,797
1956-57 ..	6,951	7,038	1,270	2,329	1,907	684	2	66	20,247	20,310
1957-58 ..	7,761	9,624	1,378	3,278	1,856	734	4	74	24,709	24,878
1958-59 ..	8,861	10,514	1,633	3,145	2,415	909	4	71	27,552	27,646
1959-60 ..	10,753	12,512	2,113	3,899	2,650	1,166	5	75	33,173	33,373

8. **Production of Mutton and Lamb.**—Details of the production of mutton and lamb in each State and Territory compared with averages for the three-year periods ended June, 1939, 1949 and 1959, are shown in the following table:—

PRODUCTION OF MUTTON AND LAMB.

(Tons.)

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
Average for three years ended—									
1938-39 ..	103,884	136,927	20,121	30,574	20,928	6,129	2	413	318,978
1948-49 ..	109,084	111,677	18,587	34,772	23,846	7,214	64	839	306,083
1958-59 ..	135,256	164,580	25,845	50,415	35,373	14,077	77	1,240	426,863
Year—									
1955-56 ..	120,615	146,228	23,020	44,339	32,759	11,778	59	1,333	380,131
1956-57 ..	121,947	131,253	23,866	42,563	33,303	12,607	49	1,198	366,786
1957-58 ..	127,800	169,107	24,381	53,681	31,942	13,221	90	1,254	421,476
1958-59 ..	156,020	193,379	29,286	55,001	40,875	16,403	93	1,269	492,326
1959-60 ..	184,600	223,519	35,886	62,760	44,385	20,780	111	1,269	573,310

9. **Consumption of Mutton and Lamb.**—Civilian consumption of mutton and lamb (in carcass equivalent weight, including canned mutton) rose substantially during the 1939-45 War, but fell again in 1946-47, and up to 1951-52 was lower than in pre-war years (an average of 74.8 lb. carcass equivalent per head per annum for the three years ended 1938-39). It rose during succeeding years to 78 lb. per head in 1952-53, and except for slight drops in 1955-56 and 1956-57, this level was maintained up to 1957-58. There was a sharp rise in 1958-59 to 89 lb. per head, and in 1959-60 a level of 105 lb. per head was reached. In 1959-60, consumption of mutton and lamb exceeded that of beef and veal for the first time on record. Figures quoted in this paragraph include the consumption of canned mutton, and differ on that account from the figures in the last column of the table following.

The following table gives details of the production and disposal of mutton and lamb:—

**PRODUCTION AND DISPOSAL OF MUTTON AND LAMB (CARCASS WEIGHT):
AUSTRALIA.**

('000 tons.)

Period.	Changes in Stock.	Pro- duction.	Exports. (a)	For Canning and Dehydra- tion.	Apparent Consumption in Australia.			
					Total.	Per Head per Annum. (lb.)		
MUTTON.								
Average for three years ended—								
1938-39 .. .. .	..	201	17	..	184	59.8	
1948-49 .. .. .	..	177	15	8	154	45.1	
1958-59 .. .. .	..	268	27	19	222	50.9	
Year—								
1955-56	— 1	234	15	16	204	49.1		
1956-57	+ 2	224	10	13	199	46.8		
1957-58	+ 1	270	23	25	221	50.7		
1958-59	— 3	310	49	19	245	55.1		
1959-60 .. .. .	..	370	48	33	289	63.7	

LAMB.

Average for three years ended—						
1938-39 .. .. .	..	118	72	..	46	15.0
1948-49	— 1	130	45	..	86	25.2
1958-59 .. .. .	..	159	31	..	128	29.3
Year—						
1955-56	+ 1	146	36	..	109	26.2
1956-57	+ 1	143	24	..	118	27.7
1957-58	— 1	152	29	..	124	28.4
1958-59	— 1	182	41	..	142	31.9
1959-60 .. .. .	..	203	26	..	177	38.9

(a) Includes carcass equivalent of boneless mutton exported.

10. Exports of Frozen Mutton and Lamb.—The export trade in mutton and lamb preserved by cold process has not since attained the level of 205 million lb. shipped in 1913, although in 1942-43 it almost reached this level again. In earlier years, shipments consisted mainly of frozen mutton, but commencing with 1923-24 lamb has subsequently predominated in almost every year.

The quantities and values of exports of frozen mutton and lamb in each year 1955-56 to 1959-60 are shown in the following table:—

EXPORTS OF FROZEN MUTTON AND LAMB: AUSTRALIA.

Year.	Exports of Frozen Mutton.		Exports of Frozen Lamb.		Exports of Frozen Mutton and Lamb.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	'000 lb.	£'000.	'000 lb.	£'000.	'000 lb.	£'000.
1955-56.. ..	34,657	1,885	81,626	7,867	116,283	9,752
1956-57.. ..	23,012	1,322	53,262	4,773	76,274	6,095
1957-58.. ..	42,270	2,253	64,352	6,132	106,622	8,385
1958-59.. ..	74,650	5,851	91,192	8,151	165,842	14,002
1959-60.. ..	71,763	4,719	59,264	4,389	131,027	9,108

As with beef, the principal customer in this trade has normally been the United Kingdom, although the United States of America has become a major buyer of mutton in recent years. In 1959–60, exports of mutton and lamb to the United Kingdom represented 29 per cent. and 71 per cent., respectively, of the total quantities exported. Forty-five per cent. of the mutton exported went to the United States of America, largely in the form of boneless meat, and the proportion of lamb exported to that country was nine per cent.

§ 5. Consumption and Marketing of Meat.

1. **Consumption of Meat.**—The quantity of meat (including cured and canned meat) in terms of carcass weight and edible offal available for consumption in Australia in 1959–60 was 1,025,809 tons. This is equivalent to 237.6 lb. per head of population compared with 244.9 lb. per head in 1958–59, and an average of 253.0 lb. during the years 1936–37 to 1938–39. The latest data published by the Food and Agricultural Organization of the United Nations in its *Food Balance Sheets* show that of the countries for which information was available, Australia occupies a leading position in terms of consumption of meat per head. Details of consumption per head of all types of meat including poultry, rabbits and hares taken from the latest *Food Balance Sheets* are set out below for Australia in comparison with a number of other countries. Australian consumption per head is slightly greater than that of other principal meat exporting countries (Uruguay, New Zealand, Argentina), and is almost 40 per cent. greater than in the United States of America and Canada, and 76 per cent. greater than that of the United Kingdom.

MEAT CONSUMPTION PER HEAD OF POPULATION IN VARIOUS COUNTRIES. (lb. per annum.)

Period Covered.	Country.	Quantity Consumed.
Average—		
Three years ended 1956–57	Australia	247.8
1954 and 1955	Uruguay	233.7
Three years ended 1956	New Zealand	232.1
1954 and 1955	Argentina	226.9
Three years ended 1956	United States of America	179.7
” ” ” 1956–57	Canada	177.7
” ” ” 1956–57	United Kingdom	140.4

2. **Marketing of Meat.**—(i) *General.* The Australian Meat Board, consisting of representatives of producers, processors, exporters and the Commonwealth Government, is responsible for the control of all exports of Australian meat and meat products. Further information on the powers, etc., conferred on the Board under the Meat Export Control Act 1935–1960 is given on page 801 of Official Year Book No. 40.

(ii) *United Kingdom Long-term Purchase Agreements.* Details of the long-term meat contracts with the United Kingdom Government from the outbreak of the 1939–45 War up to 30th June, 1952, and of the Fifteen Year Meat Agreement (1952–67) are given on page 710 of Official Year Book No. 41 and in earlier issues.

The Fifteen Year Meat Agreement (1952–67) between the United Kingdom and Australian Governments has as its objectives the promotion of meat production in Australia enabling increased exports to be made to the United Kingdom and the provision of a satisfactory market in the United Kingdom for such meat. It covers beef and veal, and mutton and lamb.

(iii) *Cessation of Bulk Purchasing.* Following the announcement in September, 1953, that the United Kingdom Ministry of Food would cease bulk purchasing of meat, arrangements were made between the Australian Meat Board and the Ministry for the reversion to private trading in the United Kingdom. The main features of the arrangements are:—

(a) Mutton and lamb exported after 1st July, 1954, and beef, veal and pigmeat exported after 1st October, 1954, direct to United Kingdom importers are to be sold on the open market under methods similar to those which applied pre-war.

- (b) The following minimum prices (f.o.b. port of shipment), to operate until 30th September, 1955, were agreed upon:—Beef and veal, 13.18d. stg. per lb.; lamb, 13.61d. stg. per lb.; and mutton, 6.05d. stg. per lb., these minimum prices to be reviewed for subsequent years.
- (c) In the event of market prices for the various classifications of meat averaging below the minimum, the Ministry is to make a payment to the Australian Government corresponding to the amount of the deficiency. So as to determine the extent of any deficiency, a procedure designed to measure as accurately as possible the weighted average level of wholesale prices of Australian meat on the United Kingdom market has been agreed upon.

(iv) *Private Trading.* As part of the negotiations which have taken place in Australia and the United Kingdom at various times since 1954, minimum prices have been reviewed periodically. The result has been a general reduction in minimum prices, and up to the 1960–61 season this had amounted to 5 per cent. in the case of beef and veal and lamb, and about 25 per cent. in the case of mutton, compared with 1954–55 minimum prices. At the same time, however, Australia has been permitted to export increasing quantities of all types of meat to destinations other than the United Kingdom and the Colonies. For the years 1957–58 to 1960–61, the beef export “free quota” was set at a maximum of 7,500 tons a year of 1st and 2nd quality beef, without restriction as to the quantity of lower grades that may be exported to these other destinations.

Minimum beef prices for the three years to 1963–64 were fixed during the 1958 negotiations at 9 per cent. below the 1960–61 level.

After eight months of open trading, the Australian Meat Board estimated that a deficiency payment would be received in respect of beef for the first year. In order to make arrangements for this anticipated payment to be passed on to the producer, the Meat Agreement (Deficiency Payments) Act was passed by the Commonwealth Government in May, 1955. Payments were to be made on the understanding that they were, or would be, reflected in the price paid to producers. To make provision for recoupment by the Board of any overpayment, the Meat Export (Additional Charge) Act was also passed in May, 1955.

Because of a rise in beef prices in the United Kingdom, the deficiency payments made by the Board during the year ended 30th September, 1955, exceeded the sum received from the United Kingdom for the same period. In an endeavour to recoup some of this overpayment, under the terms of the Meat Export (Additional Charge) Act, a levy of one-eighth of a penny per lb. was imposed on certain classes of beef exported to the United Kingdom out of stocks placed into store from 1st February to 16th April, 1956.

From 1st October, 1955, until April, 1958, beef prices in the United Kingdom were consistently below the level of the guarantee and consequently Australia “earned” deficiency payments which enabled the Australian Meat Board to make substantial bounty payments on beef exported to the United Kingdom. The rates of payment made during the 1954–55 and 1955–56 seasons are given on pages 888–9 of Official Year Book No. 43 and on pages 920–1 of Official Year Book No. 44 for 1956–57. No deficiency payments have been received since 1956–57.

In 1958, a new “chiller” grade of export beef was introduced. Beef of the new grade, whether exported in the chilled or frozen form, received a bounty of 5d. per lb. The bounty on bone-out piece beef was increased from 4d. to 5d. per lb., and on certain classes of bone-in piece beef from 3d. to 5d. per lb. The basic rate of 3d. per lb. was maintained for other 1st and 2nd quality quarter beef. The bounty payments were discontinued on 27th December, 1958, on account of the relatively high prices being obtained in the United Kingdom.

During the 1958–59 season, as in previous years, the heaviest volume of beef exports went to the United Kingdom. However, with the new free quota arrangements which operated from 1st October, 1958, Australian exporters were able to take advantage of the market for boneless manufacturing meat in the United States, and a substantial quantity of lower-grade beef, including drought-stricken stock, etc., which otherwise might not have been marketed at all, was disposed of to American manufacturers. During 1959–60, the United States market eclipsed the United Kingdom for the first time as the principal market for Australian beef exports.

§ 6. Wool.

1. **General.**—Australia is the leading wool-growing country in the world. With about one-sixth of the world's woolled sheep, Australia produces more than one-quarter of the world's wool (30 per cent. in 1959–60) and about 55 per cent. of the total fine-quality merino wool. The bulk of the production is exported, mainly as greasy wool, although substantial amounts of scoured and carbonized wool, wool on sheep skins and small quantities of semi-manufactured wool are also shipped. The remainder, which is used by Australian manufacturers, has amounted to only five per cent. of the total production (greasy basis) in recent years.

The important position held by Australia among the principal sheep and wool producing countries of the world is shown in the table on page 964.

2. **Greasy and Scoured Wool.**—Comparisons between the wool clips of different seasons and of different countries are seriously affected according to whether the weight of the clip is expressed as "in the grease" or as "clean". The quantity of grease and other matter in a fleece differs, not only between countries, but between districts in the same country. It fluctuates with the vagaries of the season, and with the breed and the condition of the sheep.

From 1946–47 to 1952–53, the Australian Wool Realization Commission, and from 1953–54, the Wool Statistical Service, has assessed annually the clean yield of the Australian wool clip. The yield of clean wool from greasy wool has shown an almost uninterrupted increase during the period of assessment up to 1956–57, when it reached 57.7 per cent. It has remained almost stationary at about 56.7 per cent. during the three following years.

Wool scoured, washed and carbonized in Australia before export, however, has a clean yield somewhat lower than for the whole clip, because the grade of greasy wool treated locally for export as scoured, washed or carbonized includes a large proportion of dirty and low-grade wool. In recent years, it has approximated 54 per cent. The quantity of this wool exported during 1959–60 was about 13 per cent. of the total raw wool exports (excluding wool exported on skins) in terms of greasy.

For the clean yield of Australian scoured wools, a standard factor of 93 per cent. is taken.

3. **Production.**—The production of wool in the States and Territories varies broadly in accordance with the number of sheep depastured and with seasonal conditions (*see* 4. below). In general, however, South Australia obtains from its large-framed Merinos a much heavier fleece per sheep than the Australian average, while Tasmania obtains from its predominantly non-Merino flocks a much lighter fleece per sheep. In addition, as a result of better management (improved pastures, fodder conservation, better breeding, control of diseases, etc.), the long-term trend has been towards higher fleece weights.

The following table shows details of total wool (i.e., shorn, dead and fellmongered, and exported on skins) produced by each of the States and Territories during the years 1955–56 to 1959–60 compared with averages for the three-year periods ended 1938–39, 1948–49 and 1958–59.

PRODUCTION OF WOOL (IN TERMS OF GREASY).
(*000 lb.)

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
Average of three years ended—									
1938–39 ..	478,595	169,256	169,325	88,699	73,141	15,728	35	1,822	996,601
1948–49 ..	439,363	200,229	151,679	108,126	95,031	16,272	305	1,927	1,012,932
1958–59 ..	633,938	298,302	217,062	187,225	160,402	30,141	277	2,371	1,529,718
Year—									
1955–56 ..	593,712	273,356	194,014	173,697	156,454	23,418	393	2,328	1,417,372
1956–57 ..	660,343	299,572	227,664	188,808	156,402	28,663	346	2,457	1,564,255
1957–58 ..	557,287	296,490	204,375	185,843	158,281	29,154	291	2,133	1,433,854
1958–59 ..	684,184	298,844	219,148	186,842	166,522	32,605	195	2,522	1,590,862
1959–60 ..	715,445	322,999	236,196	198,289	170,442	33,565	165	2,899	1,680,000

The bulk of the Australian wool production (about 93 per cent. in recent years) is shorn from live sheep. The remainder is obtained by fellmongering (about 2 per cent.), or is exported on skins (about 5 per cent.). The following table shows details of total wool production according to method of obtaining wool, and also the gross value of wool produced. Gross value is based, for shorn wool, upon the average price realized for greasy wool sold at auction, and, for skin wools, on prices recorded by fellmongers and skin exporters.

**QUANTITY (IN TERMS OF GREASY) AND VALUE OF WOOL PRODUCED:
AUSTRALIA.**

Period.	Shorn (incl. Crutchings).	Dead and Fell- mongered.	Exported on Skins.	Total Production.	
				Quantity.	Value.
	'000 lb.	'000 lb.	'000 lb.	'000 lb.	£'000.
Average of three years ended—					
1938-39.. ..	889,338	49,280	57,983	996,601	53,425
1948-49.. ..	902,007	50,660	60,265	1,012,932	152,536
1958-59.. ..	1,411,424	36,804	81,490	1,529,718	394,145
Year—					
1955-56.. ..	1,303,944	44,051	69,377	1,417,372	354,064
1956-57.. ..	1,457,387	37,724	69,144	1,564,255	507,615
1957-58.. ..	1,319,941	30,894	83,019	1,433,854	363,406
1958-59.. ..	1,456,759	41,795	92,308	1,590,862	311,415
1959-60.. ..	1,529,362	38,894	111,744	1,680,000	389,761

In comparing successive clips, allowance must be made for the circumstance that, owing to climatic or other conditions, the time of shearing may be so far delayed in some areas that one clip may include almost thirteen months' growth of wool, while the succeeding one may include little more than eleven months' growth.

4. **Average Weights of Fleeces Shorn.**—The average weights of sheep and lamb fleeces shorn in each of the States of Australia and in the Australian Capital Territory are shown in the following table for each season 1955-56 to 1959-60.

**AVERAGE WEIGHT OF SHEEP AND LAMB FLEECES SHORN.
(lb.)**

State.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
SHEEP.					
New South Wales	10.01	9.92	8.45	9.88	10.10
Victoria	10.41	11.02	9.69	9.47	10.06
Queensland	9.96	9.98	8.93	9.75	10.09
South Australia	12.68	13.14	11.60	11.87	12.31
Western Australia	11.33	10.73	10.54	10.49	10.32
Tasmania	8.85	10.07	9.38	9.37	9.10
Australian Capital Territory ..	9.75	10.20	8.28	10.41	10.51
Australia(a)	10.45	10.51	9.30	10.03	10.31
LAMB.					
New South Wales	3.11	3.30	2.75	3.08	3.22
Victoria	2.78	3.11	2.71	2.59	2.73
Queensland	4.18	4.09	3.76	3.84	3.95
South Australia	3.92	4.11	3.37	3.52	3.39
Western Australia	2.88	2.78	2.77	2.60	2.56
Tasmania	2.36	2.46	2.40	2.31	2.13
Australian Capital Territory ..	1.33	1.52	1.19	1.45	1.56
Australia(a)	3.22	3.37	2.91	3.03	3.10

(a) Excludes Northern Territory.

5. **Wool classified according to Quality.**—The following table provides a detailed analysis of wool sold at auction, according to quality, for the years 1955-56 to 1959-60. These data are compiled by the Wool Statistical Service on the basis of catalogues of auction sales. "Quality" ("64's, 60's, 58's," etc.) is a measure of the fineness and texture of wool for spinning purposes. Broadly, it means the maximum number of hanks of yarn, each of 560 yards length, which can be spun from 1 lb. of combed wool. For instance, wool of 64's quality is of a fineness and texture which will produce 64 hanks, each of 560 yards, from 1 lb. of tops (combed wool) of that particular wool.

CLASSIFICATION OF GREASY WOOL SOLD AT AUCTION(a): AUSTRALIA.
(Bales of approximately 300 lb.)

Pre-dominating Quality.	1955-56.		1956-57.		1957-58.		1958-59.		1959-60.	
	Quantity.	Per cent.	Quantity.	Per cent.	Quantity.	Per cent.	Quantity.	Per cent.	Quantity.	Per cent.
70's and finer	86,925	2.1	100,011	2.1	114,188	2.7	112,966	2.5	113,234	2.4
64/70's ..	424,946	10.2	527,264	11.1	609,897	14.3	442,019	9.5	453,823	9.5
64's ..	583,929	14.0	490,038	14.5	696,064	16.4	607,653	13.1	659,126	13.8
64/60's ..	390,633	9.4	478,418	10.1	392,933	9.2	477,054	10.3	506,001	10.6
60/64's ..	833,228	20.0	987,496	20.8	847,824	19.9	1,021,139	21.9	1,071,961	22.4
60's and 60/58's ..	746,019	17.9	804,363	16.9	645,119	15.2	837,338	17.9	839,919	17.6
Total 60's and finer	3,065,680	73.6	3,587,590	75.5	3,306,025	77.7	3,498,169	75.2	3,644,064	76.3
58's ..	503,868	12.1	502,566	10.6	435,436	10.2	519,238	11.2	491,277	10.3
56's ..	350,219	8.4	376,660	7.9	297,662	7.0	363,968	7.8	375,391	7.9
50's ..	146,640	3.5	162,533	3.4	116,329	2.7	149,356	3.2	152,056	3.2
Below 50's ..	47,505	1.1	50,055	1.0	38,514	0.9	44,292	1.0	46,429	0.9
Oddments ..	53,747	1.3	74,224	1.6	65,344	1.5	74,385	1.6	68,202	1.4
Grand Total	4,167,659	100.0	4,753,634	100.0	4,259,314	100.0	4,649,408	100.0	4,777,419	100.0

(a) All greasy wool sold at auction except "wool re-offered account buyer".

6. **World Sheep Numbers and Wool Production.**—The following table shows particulars of the woolled sheep numbers and total production of wool, in terms of greasy, in the principal wool-producing countries of the world, together with estimates of world production of merino, crossbred and carpet type wool for the latest available years.

In 1959-60, Australia produced 30 per cent. of the world total of all types of wool, the share of all British Commonwealth countries combined representing approximately 50 per cent. The principal wool producers, other than Australia, were New Zealand with 10 per cent. of the world total, Argentina, 8 per cent., United States of America, 6 per cent., and Union of South Africa, 6 per cent. Production in the U.S.S.R., China, and Eastern European countries together amounted to 19 per cent. World production of wool (all types) in 1959-60 exceeded the average for 1934-38 by approximately 1,800 million lb. or 50 per cent.

Australia's wool clip is predominantly merino. New Zealand and Argentina produce mainly crossbred wool, while the clip of the U.S.S.R. is largely of the carpet type. World production of merino wool in 1959-60 was 45 per cent. above the average for 1934-38, and the production of crossbred types has risen by about 64 per cent. Carpet wool production has risen by about 32 per cent.

ESTIMATED WORLD WOOLLED SHEEP NUMBERS AND PRODUCTION OF WOOL.

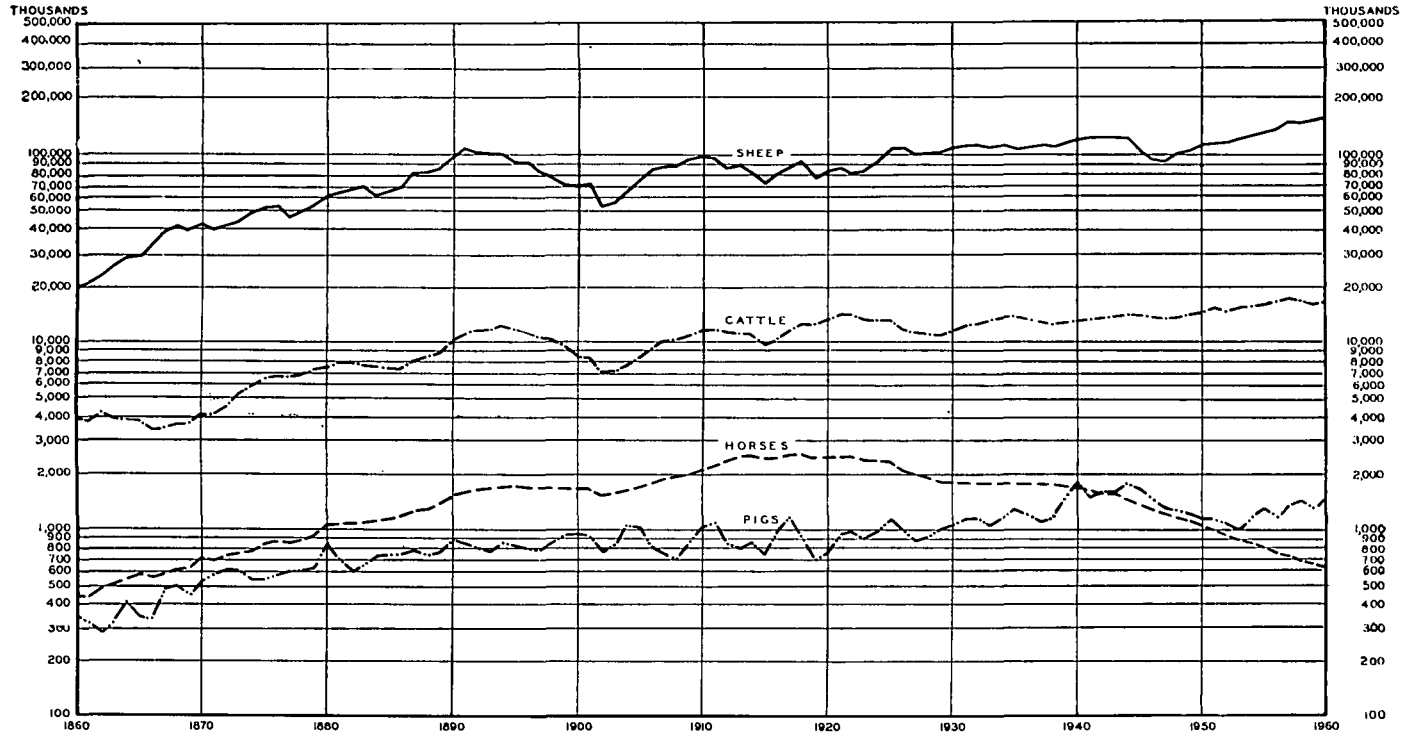
(Source: Reports published by Commonwealth Economic Committee.)

Country.	Sheep Numbers (million).			Wool Production (million lb.—in terms of greasy).		
	1957-58.	1958-59.	1959-60. (a)	1957-58.	1958-59.	1959-60. (a)
British Commonwealth—						
Australia	149	153	155	1,434	1,591	1,680
New Zealand	46	47	50	496	540	577
South Africa(b) ..	34	34	34	299	314	319
Other Commonwealth ..	80	81	82	249	254	265
Total	309	315	321	2,478	2,699	2,841
Foreign—						
U.S.S.R., China, Eastern Europe(c)	214	231	239	923	1,010	1,093
Argentina	48	48	49	409	421	434
United States of America ..	31	33	34	293	293	316
Uruguay	23	21	22	200	175	159
Other Foreign	253	255	252	744	749	763
Total	569	588	596	2,569	2,648	2,765
Grand Total	878	903	917	5,047	5,347	5,606
Type of Wool—						
Apparel type—						
Merino .. ..	..	..	..	2,042	2,212	2,284
Crossbred .. ..	..	..	..	1,831	1,942	2,078
Carpet type .. ..	..	..	..	1,174	1,193	1,244

(a) Provisional. (b) Basutoland and S.W. Africa Territory excluded from sheep numbers but included in wool production. (c) Comprises Albania, Bulgaria, China and Dependencies, Czechoslovakia, Eastern Germany, Hungary, Mongolia, Poland, Romania, Tibet and U.S.S.R.

LIVESTOCK : AUSTRALIA, 1860 to 1960

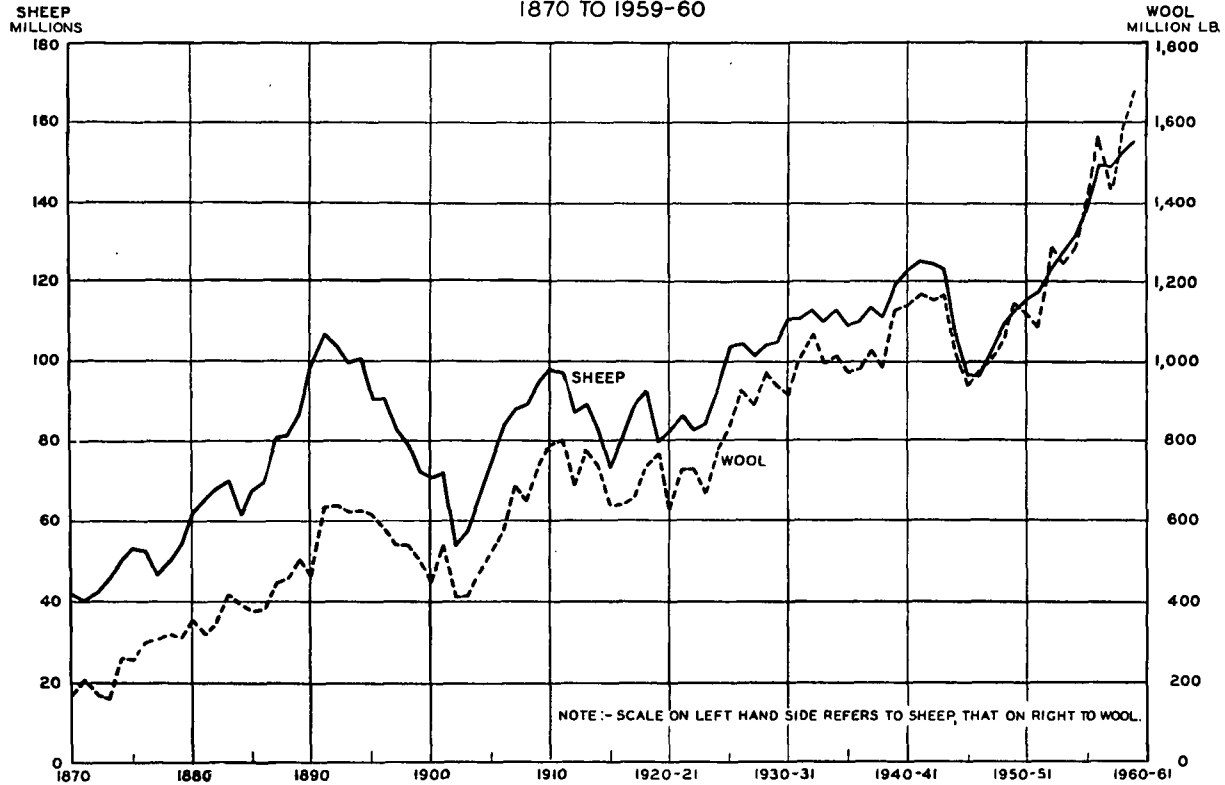
RATIO GRAPH



NOTE:- VERTICAL SCALE IS LOGARITHMIC, AND THE CURVES RISE AND FALL ACCORDING TO RATE OF INCREASE OR DECREASE, ACTUAL NUMBERS ARE INDICATED BY SCALE.

SHEEP NUMBERS AND WOOL PRODUCTION: AUSTRALIA

1870 TO 1959-60



7. *War-time Contracts.*—(i) *Wool.* Details of the contract entered into between the Governments of Australia and the United Kingdom for the purchase of the surplus wool clip of Australia for the duration of the war and one full clip thereafter (1939–40 to 1945–46) will be found in Official Year Book No. 36, page 1106.

(ii) *Sheepskins.* Details of the war-time contract arrangements for the period April, 1940, to June, 1946, between the Australian and United Kingdom Governments for the purchase of Australia's exportable surplus of woolled sheepskins will be found in Official Year Book No. 37, page 875.

8. *Australian Wool Realization Commission.*—The Australian Wool Realization Commission was the Australian subsidiary of a Joint Organization (commonly referred to as "J.O.") set up by the Governments of the United Kingdom, the Commonwealth of Australia, the Dominion of New Zealand and the Union of South Africa, under the title of "U.K.—Dominion Wool Disposals Limited" to dispose of accumulated war-time stocks of Dominion wool held by the United Kingdom Government at the end of the war. Details of the work and operations of these organizations appear in earlier issues of the Year Book, particularly No. 38, pages 919–923.

By the end of 1951, the Joint Organization had disposed of all stocks of wool held and shortly afterwards it went into voluntary liquidation. Liquidation proceedings were completed on 15th February, 1954.

Australia's share of the profits arising from the operations of J.O. amounted to approximately £93 million (including interest). The task of distributing the profits to growers was entrusted to the Australian Wool Realization Commission. Owing to some protracted litigation, known as the "Poulton Case" (see Official Year Book No. 45, p. 947), final distribution was not effected until 1959.

A residue of £2.4 million, representing unclaimed moneys, was paid to the Wool Research Trust Fund, under the terms of the Wool Realization (Distribution of Profits) Act, 1957.

9. *Australian Wool Bureau.*—(i) *General.* The Australian Wool Bureau was constituted under the Wool Use Promotion Act 1953 and replaced the Australian Wool Board which was established in 1936. The Bureau's main function is to promote the use of wool by publicity and other means in Australia and overseas.

The Bureau consists of seven members appointed by the Governor-General for a term of three years. Of the seven members, three represent the Australian Wool and Meat Producers' Federation, three the Australian Woolgrowers' and Graziers' Council and the other member is nominated by the Commonwealth Government.

(ii) *Wool Use Promotion.* The Wool Use Promotion Act 1953–1957 defines the powers and functions of the Australian Wool Bureau as including measures for promoting, by publicity or other means, the use of wool in Australia or in other countries.

The Bureau is also authorized to take measures for improving the production of wool in Australia and encouraging research directed to the promotion of the use of wool.

The Bureau is associated with the New Zealand Wool Board and the South African Wool Board in maintaining the International Wool Secretariat, which was established in 1937 with head-quarters in London and with branches in fourteen countries. The function of the Secretariat is to promote the use of wool through a broad programme of publicity, education and research.

The activities of the Australian Wool Bureau are financed from the Wool Use Promotion Fund, into which are paid the proceeds of the Wool Levy and contributions from the rental income of the wool stores, as mentioned in (iv) below.

(iii) *Wool Statistical Service.* The Wool Statistical Service, formerly conducted by the Australian Wool Realization Commission, was taken over by the Australian Wool Bureau on 23rd October, 1953. The Statistical Service is responsible for the preparation and publication of statistical material relating to the Australian wool market and the composition of the Australian clip and other special statistical work which may be assigned to it.

It is financed out of the income received by the Australian Wool Bureau from wool stores under its control and from an annual contribution by the Commonwealth Government.

A Statistical Service Committee, consisting of representatives of the Australian Wool Bureau, the Commonwealth Government, wool buyers, wool growers and wool selling brokers' organizations, acts in an advisory capacity to the Australian Wool Bureau.

(iv) *Wool Stores.* Some three hundred wool stores, formerly the property of the Joint Organization and purchased from it by the Commonwealth Government, were transferred to the ownership of the Australian Wool Bureau by virtue of the Wool Stores Act 1953. The Bureau formally assumed control of these stores on 11th January, 1954, and at the same time received a substantial sum of money representing accumulated rentals and receipts from sales which had come to hand while the stores were held by the Commonwealth Government. Under the Act, the Bureau may dispose of these stores only with the permission of the Minister for Primary Industry and, in the event of war, may be required to return the stores without compensation to the Commonwealth Government. The stores are let by the Wool Bureau as a commercial proposition. The rental income is used to meet the expenses of maintaining, managing and insuring the stores, to defray the cost of operating the Wool Statistical Service and to help finance the wool promotion activities of the Bureau.

(v) *The Contributory Charge.* Associated legislation, namely, the Wool (Contributory Charge) Act 1945, subsequently replaced by the Wool (Contributory Charge) Act (No. 1) 1950-1951 and the Wool (Contributory Charge) Act (No. 2) 1950-1951, and the Wool (Contributory Charge) Assessment Act 1945-1951 provided for a contributory charge to be imposed on woolgrowers on all shorn wool produced in Australia and sold after a date fixed by proclamation. The passage of amending Wool Tax legislation in June, 1952, made it possible to cease collection of the contributory charge at 30th June, 1952, and the legislation under which it was imposed was repealed. Further particulars of the Wool Contributory Charge and the amounts collected appear in Year Book No. 40, pages 675 and 819.

(vi) *The Wool Levy.* While the contributory charge legislation, mentioned above was in force, the Wool Levy, which was imposed by the Wool Tax Act 1936-1945 and the Wool Tax Assessment Act 1936, was temporarily suspended. When the Wool Levy was first imposed in 1936, the rate of tax on woolgrowers was 6d. a bale on all shorn wool produced in Australia and sold. The proceeds were paid into the Wool Publicity and Research Fund administered by the Australian Wool Board.

When collection of the contributory charge ceased (i.e., from 1st July, 1952), the Wool levy again became operative but at a higher rate. This rate was provided for in the Wool Tax Acts (Nos. 1 and 2) of 1952, under which a rate was prescribed between limits of 2s. and 5s. a bale on shorn wool produced in Australia and sold.

From 1952-53, the rate prescribed was 4s. a bale. The Wool Tax Acts (Nos. 1 and 2) of 1952 were repealed in May, 1957, and replaced by the Wool Tax Acts (Nos. 1 and 2) of 1957. The 1957 Acts maintained the levy on woolgrowers for wool promotion within the limits of 2s. to 5s. a bale on shorn wool produced in Australia and sold. In addition, provision was made under the 1957 Acts for woolgrowers to be levied at a maximum rate of 2s. a bale for wool research. Until 18th August, 1960, the operative rates prescribed were 4s. a bale for wool promotion purposes and 2s. a bale for wool research. On this date, the promotion levy was raised to 5s. a bale, which is the maximum permissible under current legislation.

10. *Marketing of Wool.*—(i) *Minimum Reserve Price Plan.* Details of the minimum reserve price plan which was completed by the Governments of Australia, New Zealand, South Africa and the United Kingdom in May, 1951, and which was rejected at a referendum of woolgrowers in Australia in September, 1951, will be found in Official Year Book No. 39, page 925.

(ii) *Subsidy on Woollen Goods, 1950-51.* Details of the subsidy paid on woollen goods manufactured for consumption in Australia from wool sold during the 1950-51 season will be found in Official Year Book No. 41, page 727.

11. Wool Research.—Until 1945, the Australian Wool Board was responsible for the supervision of economic and scientific research, but in that year the Commonwealth Scientific and Industrial Research Organization was made responsible for scientific, technical and biological research into sheep raising and wool production, as well as wool textile research. Economic wool research is the responsibility of the Bureau of Agricultural Economics, a division of the Commonwealth Department of Primary Industry. The economic research work falls into two main categories, namely, farm production economics dealing with economics of wool growing and sheep-station management generally, and commodity research dealing with the economic aspects of the wool industry in Australia and of wool as a commodity in world trade.

To finance the research programme, the Wool Research Trust Account was established under the Wool Use Promotion Act in 1945. Originally, a sum equal to the amount raised by the Wool Levy was paid annually by the Commonwealth Government into this account from Consolidated Revenue. The Wool Use Promotion Act 1953 fixed the rate of contribution at 2s. for each bale of shorn wool produced in Australia as from 1st July, 1952.

In addition, finance was available for research from the Wool Industry Fund. This Fund was established in 1946 from various moneys accumulated by the Central Wool Committee in war-time.

Under the Wool Research Act 1957, these sources of income, together with an increased Government contribution totalling 4s. a bale, effective from 1st July, 1957, and a contribution of 2s. a bale from woolgrowers, effective from 1st July, 1957, collected under the Wool Tax Acts 1957, were combined into one fund known as the Wool Research Trust Fund. The use of this Fund is limited to sheep and wool research and expenditure therefrom is based on the recommendations of the Wool Research Committee. This committee comprises representatives of the C.S.I.R.O., the Universities, the Department of Primary Industry, Wool-growers' Organizations, the Australian Wool Bureau, and Textile Manufacturers.

Opportunity is afforded for co-operation with State Departments of Agriculture and other organizations in research and extension activities, by the inclusion on the Committee of a representative of the Australian Agricultural Council in the capacity of an observer.

The Australian Wool Testing Authority. The Australian Wool Testing Authority Act 1957, assented to on 12th September, 1957, constituted the Australian Wool Testing Authority, composed of representatives of woolbuyers, wool selling brokers, wool processors, the Australian Wool Bureau, the C.S.I.R.O. and the Commonwealth Government. It is intended that ultimately the Authority should be self-financing, but during the preliminary stages the Commonwealth Government is providing the initial capital by way of a loan.

The function of the Authority is to provide a service in Australia for carrying out various tests on wool and wool products, particularly with regard to the moisture content of scoured and carbonized wool. Testing on a commercial basis commenced in September, 1958.

In February, 1959, the Authority was notified by the International Wool Textile Organization that it would be included in the organization's list of official wool testing establishments. This is the standard of international recognition for wool testing houses and gives the Australian Wool Testing Authority the same standing as similar organizations in other countries.

Wool Marketing Committee of Enquiry. On 25th January, 1961, the names of the members and terms of reference of a Committee to inquire into Australian wool marketing methods was announced. The terms of reference are—

- (a) to inquire into the present systems of marketing and of promoting the sale of the Australian wool clip and matters relating thereto, and to report upon the efficacy of these systems;
- (b) to report upon the results of any other systems or of modifications of the present systems which may be advocated to the Committee of Enquiry or which the Committee itself considers would be of long-term benefit to the wool-growing industry and in the best interests of the nation.

12. Consumption of Wool.—(i) *Consumption of Raw Wool.* Statistics of raw wool consumption published in recent years for the purposes of broad international comparisons are based on the quantities of scoured or carbonized wool used on the woollen and worsted systems (mill consumption), plus quantities used in such processes as felting. Consumption

estimates compiled on this basis have obvious defects, as they disregard overseas trade in semi-processed wool (e.g., tops and yarns) as well as woollen goods. They are, however, comparatively simple to calculate and are useful in providing an approximate indication of trends in wool consumption. Estimates of raw wool used on the woollen and worsted systems and by felt manufacturers in Australia are shown in the following table for the years 1955-56 to 1959-60.

ESTIMATED CONSUMPTION OF RAW WOOL IN AUSTRALIA.

('000 lb.)

Year.	Greasy Basis.			Clean Basis.		
	Used on Woollen and Worsted Systems.	Used for Felt Manufacture (including Hats).	Total.	Used on Woollen and Worsted Systems.	Used for Felt Manufacture (including Hats).	Total.
1955-56	92,374	7,586	99,960	54,847	3,603	58,450
1956-57	108,255	5,218	113,473	65,504	2,479	67,983
1957-58	103,704	4,480	108,184	63,153	2,128	65,281
1958-59	103,180	3,992	107,172	62,834	1,896	64,730
1959-60	123,529	5,092	128,621	75,226	2,419	77,645

(ii) *Consumption of Locally Processed Wool.* As considerable quantities of tops, noils and yarn are exported from Australia, the series on raw wool consumption shown above is over-stated to this extent. The series entitled "Consumption of Locally Processed Wool" provides a more reliable indication of wool consumption in Australia, as allowance has been made for exports of wool in semi-processed form. This series is shown in the following table for the years 1955-56 to 1959-60. Briefly, the series measures consumption of wool in terms of yarn used in Australian mills and other factories to produce woollen cloth and other woollen goods, yarn used for hand knitting purposes, and scoured wool used for felt manufacture. No allowance has been made for overseas trade in woollen piece goods, clothing, etc., because of the obvious difficulties of estimating accurately the wool content of these products.

ESTIMATED CONSUMPTION OF LOCALLY PROCESSED WOOL IN AUSTRALIA.

('000 lb.)

Year.	Greasy Basis.				Clean Basis.			
	Worsted Yarn Used. (a)(b)	Woollen Yarn Used. (b)	Scoured Wool used for Felt Manufacture (including Hats).	Total.	Worsted Yarn Used. (a)(b)	Woollen Yarn Used. (b)	Scoured Wool used for Felt Manufacture (including Hats).	Total.
1955-56	43,041	27,837	7,586	78,464	25,176	17,014	3,603	45,793
1956-57	44,325	30,093	5,218	79,636	26,172	18,737	2,479	47,388
1957-58	40,716	32,288	4,480	77,484	24,201	20,253	2,128	46,582
1958-59	37,972	29,272	3,992	71,236	22,811	18,520	1,896	43,227
1959-60	45,456	35,442	5,092	85,990	27,070	22,169	2,419	51,658

(a) Includes hand knitting yarns used.
of wool and other fibres.

(b) Includes wool content of yarns containing a mi

13. **Exports of Wool.**—(i) *Quantities.* (a) *Greasy.* Prior to the 1939-45 War, Australian greasy wool exported overseas was sent principally to the United Kingdom and other European countries. During the 1939-45 War, exports to the United States of America showed great expansion but have since dwindled to about 2 per cent. Of the total shipments in 1959-60, 26 per cent. went to Japan, 21 per cent. to the United Kingdom, 13 per cent. to France, 10 per cent. to Italy and 8 per cent. to Belgium-Luxembourg. The following table shows the quantities of greasy and slipe wool exported, and the principal countries of consignment.

EXPORTS OF GREASY AND SLIPE WOOL.

('000 lb. actual weight.)

Country of Consignment.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
United Kingdom	275,572	306,504	251,305	305,888	266,297
Other Commonwealth Countries ..	9,315	12,242	8,643	10,803	11,796
Japan	189,852	233,036	203,988	273,503	335,296
France	199,797	215,150	179,480	157,871	161,844
Italy	93,266	123,438	130,062	113,156	130,516
Belgium-Luxembourg	93,660	105,963	102,197	103,261	105,974
Germany, Fed. Rep. of	74,936	82,897	66,117	60,070	70,223
United States of America	48,059	37,454	21,235	28,299	24,323
Other Foreign Countries	82,347	92,509	119,279	134,138	188,081
Total	1,066,804	1,209,193	1,082,306	1,186,989	1,294,350

(b) *Scoured and Washed and Carbonized.* The exports of "scoured and washed" wool, whether carbonized or not, are shown in the following table according to principal countries of destination.

EXPORTS OF WOOL—SCOURED AND WASHED AND CARBONIZED.

('000 lb. actual weight.)

Country of Consignment.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
United Kingdom	24,276	24,298	19,525	24,597	24,661
Canada	5,356	3,220	3,901	4,803	5,375
Other Commonwealth Countries ..	1,285	1,538	1,857	1,941	2,318
United States of America	16,919	13,294	13,575	14,815	14,482
Germany, Fed. Rep. of	8,329	10,583	12,252	8,692	9,406
Italy	6,017	7,671	7,405	7,117	8,668
Japan	2,428	3,890	720	4,325	4,345
France	5,309	6,245	6,205	3,732	3,842
Belgium-Luxembourg	3,601	4,017	2,734	1,754	1,855
Other Foreign Countries	11,397	15,928	20,068	18,775	25,574
Total	84,917	90,684	88,242	90,551	100,526

(c) *Tops, Noils and Waste.* Particulars of the exports of tops, noils and waste are shown in the following table.

EXPORTS OF WOOL TOPS, NOILS AND WASTE.

('000 lb. actual weight.)

Particulars.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
Tops	11,107	14,949	16,921	20,203	22,743
Noils	4,486	4,578	3,298	4,355	4,017
Waste—Soft wool	7,094	14,668	3,484	7,742	5,607
Hard wool	3,617	4,428	3,195	4,388	3,193

(d) *Total Quantity of Exports.* The following table shows the estimated greasy and clean weights of exports of raw and semi-processed wool for the years 1955–56 to 1959–60. As the figures in the following table are in terms of "greasy" or "clean" basis, they differ from those in the preceding tables which represent actual weight shipped.

EXPORTS OF WOOL—GREASY AND CLEAN BASES.

('000 lb.)

Particulars.	1955–56.	1956–57.	1957–58.	1958–59.	1959–60.
GREASY BASIS.					
<i>Raw Wool—</i>					
Greasy and Slip	1,067,654	1,209,840	1,082,724	1,187,399	1,294,598
Scoured and Washed	158,774	171,848	164,019	169,021	186,217
Carbonized	69,377	69,144	83,019	92,308	111,744
Exported on Skins					
<i>Total</i>	<i>1,295,805</i>	<i>1,450,832</i>	<i>1,329,762</i>	<i>1,448,728</i>	<i>1,592,559</i>
<i>Semi-processed Wool—</i>					
Tops	19,993	27,058	30,627	36,365	41,620
Yarn	123	149	158	128	89
<i>Total</i>	<i>1,315,921</i>	<i>1,478,039</i>	<i>1,360,547</i>	<i>1,485,221</i>	<i>1,634,268</i>
CLEAN BASIS.					
Raw Wool	741,653	841,371	760,229	827,418	911,389
Semi-processed Wool	11,510	16,080	18,364	21,690	24,841
<i>Total</i>	<i>753,163</i>	<i>857,451</i>	<i>778,593</i>	<i>849,108</i>	<i>936,230</i>

(ii) *Total Value of Exports.* The value of wool (other than wool on sheepskins) exported from Australia during the five years ended 1959–60 averaged 45 per cent. of the total value of exports of merchandise of Australian origin, and during 1959–60 the proportion was 43 per cent. The value for the five years ended 1959–60, together with the principal countries to which wool was exported, is shown in the following table.

VALUE OF WOOL EXPORTS.(a)

(£'000.)

Country of Consignment.	1955–56.	1956–57.	1957–58.	1958–59.	1959–60.
United Kingdom	83,088	117,372	79,582	73,082	75,947
Other Commonwealth Countries	8,060	9,920	8,026	7,762	9,567
Japan	64,761	103,750	74,301	68,923	95,626
France	53,388	73,494	52,831	34,162	40,040
Italy	29,259	47,905	41,703	28,181	38,556
Belgium-Luxembourg	23,600	32,987	24,592	15,415	20,733
Germany, Fed. Rep. of	21,391	29,608	22,130	16,479	19,774
United States of America	21,627	20,705	12,864	11,270	12,436
Other Foreign Countries	32,334	47,963	57,368	46,937	73,463
<i>Total</i>	<i>337,508</i>	<i>483,704</i>	<i>373,397</i>	<i>302,211</i>	<i>386,142</i>

(a) Excludes wool exported on sheepskins.

14. Stocks of Wool.—Stocks of raw wool held in Australia at 30th June, 1960, amounted to 244.9 million lb. (as in the grease) of which 65.3 million lb. (42.2 million lb. as greasy and 23.1 million lb. as scoured and carbonized) were held by woollen mills, wool scourers and fellmongers, and 179.6 million lb., assumed to be all greasy, were held by brokers. Of the wool held by brokers, 54.1 million lb. were unsold wool and 125.5 million lb. were sold wool held awaiting shipment. These stocks exclude wool on skins, since this wool is not recorded as production until fellmongered in Australia or exported on skins.

15. Price.—Wool is the chief factor in the pastoral wealth of Australia, and the nation's prosperity is largely dependent upon its satisfactory sale. Auction sales are conducted at Sydney, Goulburn, Newcastle, Albury, Melbourne, Geelong, Ballarat, Brisbane, Adelaide, Perth, Albany, Hobart and Launceston, and are attended by buyers representing manufacturers and merchants in the United Kingdom, France, the United States of America, Japan, U.S.S.R. and many other countries. More than 95 per cent. of the Australian wool clip is now disposed of at auction in Australia. During the five years ended 1959–60, the price of greasy wool sold in the selling centres of Australia averaged 62.0d. per lb. compared with the average selling price of 11.5d. per lb. during the ten years ended 1938–39. The average for the nine years ended 1928–29 was 18d. per lb., and for the seven years ended 1913–14, 9d. per lb.

As indicated in para. 7 above, the price of wool during the 1939–45 War was determined by the British Government wool contract. With the return to auction sales since 1945–46, the average price of greasy wool sold rose rapidly from the contract price of 15.45d. per lb. applicable in 1945–46 to the unprecedented level of 144.19d. per lb. in 1950–51. This was followed by a sharp fall, and prices in the years 1951–52 to 1957–58 fluctuated in the range 61d. to 82d., while in 1958–59 they fell to 48.6d., the lowest for ten years. This was followed by a recovery to 57.8d. in 1959–60.

The prices quoted above, except for United Kingdom contract prices, are as compiled by the National Council of Wool Selling Brokers and represent the average price realized for all greasy wool, of whatever type or quality, marketed during the years indicated.

16. Value.—Fluctuation in Australian wool prices has a marked effect on the nation's rural income. In 1945–46, the gross value of wool production was £58,597,000, representing 17.4 per cent. of the gross value of all rural industries, while in 1950–51, when prices reached a peak, wool was valued at £651,902,000 or 55.6 per cent. of the total for all rural industries. The value of wool production fell in subsequent years even though the quantity produced increased substantially, and in 1959–60 was £389,761,000.

Details of the value of wool production for the years 1955–56 to 1959–60 are shown in the following table:—

ESTIMATED GROSS VALUE OF TOTAL WOOL PRODUCTION.(a)

(£'000.)

Season.	N.S.W.	Vic.	Qld.	S. Aust.	W.Aust.	Tas.	N.T.(b)	A.C.T.	Aust.
1955–56 ..	149,128	69,020	53,134	39,911	35,881	6,190	92	708	354,064
1956–57 ..	217,124	97,659	77,522	57,289	46,965	9,974	106	976	507,615
1957–58 ..	143,337	76,255	53,836	42,354	39,209	7,742	67	606	363,406
1958–59 ..	134,764	59,471	45,075	33,797	30,915	6,844	36	513	311,415
1959–60 ..	168,112	75,952	54,573	42,691	39,334	8,254	35	810	389,761

(a) Includes shorn, dead and fellmongered wool and wool exported on skins. Excludes distribution of profits under the Wool Disposal Plan. (b) Estimated.

17. United Kingdom Importation of Wool.—The important position which Australia occupies in the supply of wool to the United Kingdom is indicated in the following statement of the quantities of wool imported into that country from the principal wool-producing countries during each year 1956 to 1960.

WOOL(a): IMPORTS INTO UNITED KINGDOM.

(Source: Board of Trade Accounts relating to Trade and Navigation of the United Kingdom.)
(’000 lb.)

Country of Origin.	1956.	1957.	1958.	1959.	1960.
Australia	310,585	315,310	292,407	333,565	266,348
New Zealand	163,550	166,050	168,241	170,882	162,147
Union of South Africa	61,194	45,563	52,594	64,883	48,449
India and Pakistan	25,912	29,889	22,717	25,442	25,652
Other Commonwealth Countries	9,583	11,410	9,671	10,544	10,037
Argentina	32,740	32,484	29,088	55,022	54,783
France	22,228	16,657	18,727	23,689	12,140
Uruguay	34,373	17,448	23,353	15,096	20,689
Other Foreign Countries	39,156	40,536	41,791	52,557	46,525
<i>Total Quantity</i>	<i>699,321</i>	<i>675,347</i>	<i>658,589</i>	<i>751,680</i>	<i>646,770</i>
Total Value (£’000 sterling)	167,927	188,754	134,001	146,801	134,898

(a) Greasy, Slipe, Washed and Scoured, and Carbonized.

Australian wool represented 41 per cent. of the total quantity imported into the United Kingdom during 1960. New Zealand supplied 25 per cent. and South Africa 7 per cent., while the total quantity received from British Commonwealth countries constituted 79 per cent. of all United Kingdom imports of wool.

18. **Principal Importing Countries and Sources of Supply.**—The following table, prepared from information published by the Commonwealth Economic Committee, furnishes, in respect of the principal importing countries, details of their production and imports of wool for 1959 together with the chief sources of supply. The quantities imported refer to the actual weight of wool, without distinguishing between greasy and scoured, except in the case of the United States of America where estimated clean content of raw wool is quoted.

WOOL: PRINCIPAL IMPORTING COUNTRIES AND SOURCES OF SUPPLY, 1959.

(Source: Information published by Commonwealth Economic Committee.)
(Million lb.)

Importing Country.	Pro- duction of Importing Country. (a)	Quantity Imported from— (b)					Total Imports.
		Australia.	New Zealand.	Union of South Africa.	Argen- tina.	Other Countries.	
United Kingdom	128	333.6	170.9	64.9	55.0	127.3	751.7
Belgium	(c)	110.0	27.0	9.0	26.8	24.8	197.6
France	55	168.6	97.2	42.6	39.2	18.4	366.0
Germany (Federal Republic)	(c)	83.5	32.4	36.4	26.3	59.6	238.2
Italy	32	112.6	24.0	20.7	23.2	56.0	236.5
Japan	(c)	302.5	18.8	11.3	18.3	18.1	369.0
United States of America(d)	316	34.5	66.6	23.1	69.8	98.1	292.1

(a) As in the grease, 1959-60. (b) Actual weight of greasy and scoured wool. (c) Not available. (d) Imports are in terms of estimated clean content of greasy and scoured wool. Actual weight of total United States of America imports was 395.7 million lb.

As a considerable transit trade exists between continental countries, it must not be assumed that the whole of the imports recorded by these countries is retained for their own consumption. The countries chiefly concerned with the transit trade are the United Kingdom (8 per cent. of total imports re-exported in 1959) and Belgium.

§ 7. Oversea Trade in Hides and Skins.

1. **Extent of Trade.**—In addition to the hides and skins treated locally, considerable quantities are exported. The value of cattle and horse hides, sheep and other skins, and skin pieces, sent overseas during 1959–60 amounted to £31,727,000, compared with a total of £23,525,000 in 1958–59 and £25,353,000 in 1957–58.

2. **Export of Sheepskins.**—(i) *With Wool.* Of the total exports of sheepskins with wool, amounting to 167,734,000 lb. valued at £23,238,000 during 1959–60, 123,518,000 lb. valued at £16,980,000 were shipped to France, 14,251,000 lb. valued at £2,314,000 to Italy, and 14,399,000 lb. valued at £1,799,000 to the United Kingdom. In the previous year, France obtained about three-quarters (by value) of all sheepskins with wool exported and the United Kingdom about 9 per cent. The exports of sheepskins with wool during each of the years 1955–56 to 1959–60 were as follows:—

EXPORTS OF SHEEPSKINS WITH WOOL: AUSTRALIA.

Particulars.	1955–56.	1956–57.	1957–58.	1958–59.	1959–60.
Number '000	14,891	14,239	19,441	20,180	25,560
Value £'000	15,268	19,438	20,219	14,768	23,238

(ii) *Without Wool.* Up to 1943–44, sheepskins without wool were exported chiefly to the United States of America. During 1943–44, that country accounted for 97 per cent. of the total shipments. In subsequent years, however, there has been a decline in the proportion shipped to the United States of America. In 1958–59, the United States received 66 per cent., and in 1959–60 only 28 per cent. In the latter year, France was the main importer, taking 30 per cent. (value, £112,551), while the United Kingdom purchased 25 per cent. (value, £92,758). In 1959–60, a total of 1,486,000 sheepskins without wool were exported valued at £372,000. Since 1954–55, the number exported has exceeded two million only once (in 1958–59), and the value has fluctuated about £400,000.

3. **Hides.**—(i) *Exports.* The export trade in cattle hides and calfskins during 1959–60 was distributed amongst the main importing countries as follows:—Japan, £2,469,000; Germany (Federal Republic), £702,300; Italy, £571,800; Netherlands, £532,900; United States of America, £352,100. The total quantity exported was 56,357,000 lb., valued at £5,752,000.

(ii) *Imports.* The imports of cattle hides and calfskins are fairly substantial, the chief sources of supply being New Zealand and the Pacific Islands. The quantity of cattle hides, including calfskins, imported into Australia during the year 1959–60 amounted to 1,589,000 lb. valued at £153,000, the highest figures attained since 1953–54.

4. **Furred Skins.**—The exports of furred skins in 1959–60 were valued at £1,755,000, of which rabbit and hare skins constituted £1,156,000. This is the highest total value recorded since 1955–56 (£2,013,000), when rabbit and hare skins accounted for £1,711,000. In 1958–59, they accounted for £1,288,000 out of a total of £1,477,000.

Skins were shipped principally to the United States of America, the United Kingdom, Belgium and Luxembourg, the values shipped to each in 1959–60 being:—United States of America, £1,207,200; United Kingdom, £333,700; and Belgium-Luxembourg, £64,400.

5. **Marketing of Hides and Skins.**—(i) *Sheepskins with Wool.* Details of the agreement between the United Kingdom and Commonwealth Governments for the purchase by acquisition of the “exportable surplus” of woolled sheepskins in Australia during the 1939–45 War were given in Official Year Book No. 37, page 886. The contract expired on 30th June, 1946, and sheepskins have since been marketed mostly at open auction.

(ii) *Sheep and Lamb Pelts.* Details of the marketing control of sheep and lamb pelts were given in Official Year Book No. 38, page 930. Pelts have since reverted to open marketing without export restrictions.

(iii) *Hides and Leather.* A hide acquisition and marketing scheme operated from November, 1939, to August, 1954. The Australian Hide and Leather Industries Board, which administered the scheme, acquired all cattle hides and yearling and calf skins produced in Australia at set prices and allocated them to tanners at these prices. Further details of the war-time operations of the scheme will be found in Official Year Book No. 37, page 887, and Official Year Book No. 38, pages 930–1.

Pre-war, about 40 to 45 per cent. of Australian production of cattle hides and calf skins was exported but, with the development of the local tanning industry, the proportion is now approximately 30 per cent.

(iv) *Rabbit Skins.* A marketing control scheme for rabbit skins was introduced under the National Security (Rabbit Skins) Regulations on 10th June, 1940, and terminated in April, 1949. Details of the scheme will be found in Official Year Book, No. 38, page 931.

§ 8. Tallow.

1. **Consumption of Tallow in Factories.**—Details of consumption are collected from the principal factories using tallow. Consumption of inedible tallow in these factories (soap and candle, chemical and woolscouring works) for the five years 1955–56 to 1959–60 was as follows:—1955–56, 1,210,694 cwt.; 1956–57, 1,207,578 cwt.; 1957–58, 1,280,984 cwt.; 1958–59, 1,216,668 cwt.; 1959–60, 1,277,542 cwt. These figures are, however, deficient to the extent that no allowance has been made for small unrecorded amounts used in other types of establishments. Details of edible tallow consumed in factories are not available.

2. **Exports of Tallow.**—Particulars of exports of edible and inedible tallow are shown in the following table for the five years 1955–56 to 1959–60:—

TALLOW: EXPORTS, AUSTRALIA.
(cwt.)

Particulars.	1955–56.	1956–57.	1957–58.	1958–59.	1959–60.
Edible	127,275	120,194	116,986	74,053	118,848
Inedible	829,403	936,951	878,060	1,022,844	1,533,734
Total	956,678	1,057,145	995,046	1,096,897	1,652,582

3. **Marketing of Tallow.**—Until 30th September, 1952, the bulk of Australia's exportable surplus tallow, other than collar white mutton tallow, was sold to the United Kingdom Ministry of Food under a series of annual contracts. The 1951–52 contract was not renewed and on 9th November, 1952, tallow export control was removed following termination of the industry's equalization pool arrangement and price de-control in most States.

§ 9. Exports of Principal Pastoral Products.

The quantities and values of the principal pastoral products of Australia exported for the years 1957–58 to 1959–60 were as follows:—

EXPORTS OF PASTORAL PRODUCTS: AUSTRALIA.

Product.	Unit of Quantity.	Quantity.			Value (£'000.)		
		1957–58.	1958–59.	1959–60.	1957–58.	1958–59.	1959–60.
Animals (living)—							
Cattle	No.	23,933	13,900	13,602	932	493	456
Horses	"	681	300	1,927	191	161	487
Sheep	"	122,628	135,720	225,757	466	393	805
Bones	'000 cwt.	12	13	7	24	19	9
Gelatine (Edible)	'000 lb.	1,364	1,280	1,329	257	239	237
Glycerine	"	673	2,850	690	44	210	58
Hair and Bristles	cwt.	1,958	2,652	5,606	127	89	111
Hoofs	"	10,533	9,072	5,447	20	15	9
Horns	"	8,475	15,321	9,155	58	66	56
Meats—							
Frozen Beef and Veal(a)	'000 lb.	282,005	510,239	421,576	21,570	55,486	55,464
" Mutton and Lamb	"	106,622	165,842	131,027	8,384	14,002	9,108
" Rabbits and Hares	Value only	..	..	..	2,802	3,047	2,822
" Other .. .. .	"	..	..	..	..	5,461	5,089
Preserved in Tins, etc.	'000 lb.	131,833	127,049	107,649	15,100	15,434	13,319
Other (excluding Bacon and Ham)	Value only	..	..	..	1,148	1,435	925
Sausage Casings .. .. .	"	..	..	..	2,610	2,223	1,768
Hides and Skins—							
Cattle and Calf	'000 lb.	50,557	85,324	56,357	3,240	6,490	5,752
Horse	"	2,220	1,595	1,723	125	99	173
Sheep and Lamb	'000.	20,255	22,249	26,003	20,451	15,200	24,652
Rabbit and Hare	'000 lb.	3,686	4,444	2,921	913	1,288	1,156
Tallow (Edible and Inedible)	cwt.	995,046	1,096,897	1,652,582	4,311	4,488	5,079
Wool—							
Greasy and Slip	'000 lb.	1,082,306	1,186,989	1,294,350	326,146	264,490	337,394
Scoured, Tops, Noils, Waste	"	115,140	127,240	136,086	47,251	37,721	48,748

(a) Includes chilled beef.

CHAPTER XXIV.

FARMYARD, DAIRY AND BEE PRODUCTS.

NOTE.—Values of Australian oversea trade shown throughout this chapter are expressed as £A f.o.b. port of shipment, except where otherwise indicated.

For further detail on subjects dealt with in this chapter, reference should be made to the annual printed bulletins *Primary Industries, Part I.—Rural Industries, Part II.—Non-rural Industries and Value of Production* and *Secondary Industries* (butter, cheese, etc., factories) issued by this Bureau. The following mimeograph publications also contain considerable detail on the particular subjects dealt with, and are issued as soon as possible after the information has been compiled:—*The Dairying Industry* (monthly and half-yearly), *Manufacturing Industries No. 21.—Butter, Cheese and Condensed, Concentrated, etc., Milk* (annual), *Livestock Numbers* (annual), *Bee-farming* (annual), *Milking Machines on Rural Holdings* (annual), and *Value of Production and Indexes of Price and Quantum of Farm Production* (annual). The mimeograph annual *Report on Food Production and the Apparent Consumption of Foodstuffs in Australia* contains information on the production and utilization of farmyard, etc., products; the series *Size Classification of Rural Holdings, 1955–56*, shows particulars of rural holdings classified according to size, nature and area of crops, and numbers of livestock, and also according to number of milking machine stands. Current information on commodities produced is obtainable in the *Quarterly Summary of Australian Statistics*, the *Monthly Review of Business Statistics*, and the *Monthly Bulletin of Production Statistics*.

§ 1. Introduction.

1. **General.**—The introduction of cattle into Australia and the early history of the dairying industry are referred to in some detail in earlier issues of this Year Book. It may be noted here that an increased and improved milk supply has resulted from the crossing of imported stud cattle with the original stock and from the further judicious crossing of strains. In Australia, dairy cattle thrive in the open throughout the year, local climatic conditions demanding no protection other than tree plantations for shelter and, in certain districts, rugging in the coldest weather. Indigenous and imported grasses furnish food during the greater part of the year, and winter fodder, when necessary, is given to the cattle in the fields. With the wider application of scientific methods in the treatment of animals and pastures and in the processes of manufacture, coupled with herd testing and effective State supervision, the dairying industry has shown rapid expansion. It has been demonstrated that Australian production and marketing methods do not adversely affect the vitamin content of the butter and that the loss during cold storage even for as long as two years is insignificant.

2. **Mixed Farming.**—Apart from specialized dairy farms, dairying is carried on fairly extensively on mixed farms. Originally, dairying on mixed farms was conducted mainly in conjunction with agriculture, but in more recent times it has been carried on also in conjunction with various types of grazing. In non-coastal regions, it is generally carried on in association with agriculture and sheep-raising, sufficient fodder being grown to carry the cattle through the winter months. The extent to which dairy cattle were run in conjunction with beef cattle, sheep, and pigs in 1955–56 is shown in the relevant tables published in a series of mimeograph bulletins *Size Classification of Rural Holdings, 1955–56*, and also in summarized form in *Primary Industries, Part I.—Rural Industries, 1956–57, Bulletin No. 51*. Similar tabulations are being compiled for 1959–60, but details are not yet available.

3. **Employment.**—Persons who described themselves at the population census as being engaged in dairy farming comprised 96,508 males and 10,018 females, a total of 106,526 persons at the Census of 30th June, 1947, and 100,553 males and 11,004 females, a total of 111,557 persons at the Census of 30th June, 1954. Similar details from the Census of 30th June, 1961, are not yet available.

4. **Growth of the Dairying Industry.**—The following table gives some indication of the growth of the dairying industry since 1916–17.

DAIRYING INDUSTRY: AUSTRALIA.

Period.	Number of Dairy Cows at 31st March.			Production of—			Milking Machines (No. of Stands). (a)
	In Milk.	Dry.	Total.	Whole Milk for all Purposes.	Butter (Factory and Farm).	Cheese (Factory and Farm).	
Average for three years ended—				Million Gallons.	Tons.	Tons.	
1918-19..	1,281,820	569,611	1,851,431	565.1	84,043	11,403	(b)
1928-29..	1,689,887	626,180	2,316,067	791.2	122,750	13,159	(b)
1938-39..	2,552,092	658,232	3,210,324	1,142.0	190,827	24,848	(b)
1948-49..	2,278,043	855,223	3,133,266	1,153.2	157,064	42,343	135,137
1958-59..	2,333,147	1,032,243	3,365,390	1,330.9	187,393	41,567	213,555
Year—							
1955-56..	2,393,870	1,009,637	3,403,507	1,402.0	208,911	38,700	204,298
1956-57..	2,354,301	1,097,149	3,451,450	1,357.9	192,854	45,216	210,664
1957-58..	2,281,571	1,080,003	3,361,574	1,264.4	175,757	35,976	213,716
1958-59..	2,363,569	919,578	3,283,147	1,370.2	193,568	43,509	216,287
1959-60..	3,243,472		3,243,472	1,406.5	197,552	44,517	221,260

(a) "Number of Stands" indicates the number of cows that can be milked simultaneously—i.e., the cow capacity of installed milking machines. (b) Not available.

5. **Official Supervision of Dairying Industry.**—Dairy experts of the various State Agricultural Departments give instruction in approved methods of production, and inspect animals, buildings and marketable produce, with the result that a high standard of cleanliness prevails.

The export trade is regulated by the terms of the Commonwealth Customs Act 1901-1954 and the Commonwealth Commerce (Trade Descriptions) Act 1905-1950, and regulations thereunder. This legislation requires that the true trade description, etc., be marked on all produce intended for export, while official inspection ensures the maintenance of purity and quality. Upon request of the exporter, the goods are given a certificate by the inspector.

6. **Australian Agricultural Council.**—General information on the constitution and functions of the Australian Agricultural Council is given on page 884 of Chapter XXII.—Agricultural Production.

§ 2. Value of Farmyard, Dairy and Bee Production and Indexes of Price and Quantum of Production.

1. **Gross Value of Farmyard, Dairy and Bee Production, 1955-56 to 1959-60.**—The following table shows the gross value of recorded farmyard and dairy production at the principal markets in Australia:—

GROSS VALUE OF FARMYARD, DAIRY AND BEE PRODUCTION: AUSTRALIA. (£'000.)

Particulars.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
Whole Milk used for—					
Butter(a)	78,559	66,991	61,252	66,328	72,615
Cheese(a)	8,585	9,398	7,399	10,120	10,124
Condensing, Concentrating, etc. . .	8,908	8,901	9,540	9,230	10,340
Other purposes	52,465	55,393	58,179	59,887	61,768
Subsidy Paid on Whole Milk for Butter and Cheese	14,499	13,500	13,500	13,500	13,500
<i>Total Whole Milk (including Subsidy)</i>	<i>163,016</i>	<i>154,183</i>	<i>149,870</i>	<i>159,065</i>	<i>168,247</i>
Pigs Slaughtered	25,543	25,948	25,032	25,553	30,121
Dairy Cattle Slaughtered	9,269	8,280	10,425	15,721	14,228
Eggs	42,137	43,567	42,320	40,397	45,249
Poultry	11,666	11,432	13,150	14,380	14,588
Honey	1,801	2,371	1,794	1,803	2,390
Beeswax	132	157	115	105	155
Total.	253,564	245,938	242,706	257,024	275,078

(a) Excludes Commonwealth subsidy which is shown separately below.

2. **Gross and New Values, 1959-60.**—The values of dairy, poultry and bee farming production on gross, local and net bases are shown in the following table. Further information on values, including definitions of the terms used, is given in Chapter XXX.—Miscellaneous.

GROSS, LOCAL AND NET VALUE OF FARMYARD, DAIRY AND BEE PRODUCTION 1959-60.

(£'000.)

State.	Gross Production Valued at Principal Markets.	Marketing Costs.	Gross Production Valued at Farm.	Value of Materials Used in Process of Production. (a)	Net Value of Production. (b)
New South Wales	96,073	13,208	82,865	(c) 13,580	69,285
Victoria	95,162	4,865	90,297	27,764	62,533
Queensland	40,677	2,432	38,245	8,666	29,579
South Australia	18,654	854	17,800	6,888	10,912
Western Australia	12,348	792	11,556	6,991	4,565
Tasmania	11,699	627	11,072	(c) 3,580	7,492
Northern Territory	114	6	108	15	93
Australian Capital Territory	351	22	329	111	218
Total	275,078	22,806	252,272	67,595	184,677

(a) No allowance has been made for costs of materials used in the process of production in the Poultry (for States other than Queensland) and Bee-farming Industries. (b) No deduction has been made for depreciation and maintenance. (c) No allowance has been made for costs of power, power kerosene, petrol and other oils.

3. **Net Value of Production, 1955-56 to 1959-60.**—In the following table, the net values of farmyard, dairy and bee production (total and per head of population) are shown by States.

NET VALUE OF FARMYARD, DAIRY AND BEE PRODUCTION. (a)

Year.	N.S.W. (b)	Vic.	Q'land.	S. Aust.	W. Aust.	Tas. (b)	Australia. (c)
NET VALUE. (£'000.)							
1955-56	63,000	67,329	28,630	15,320	4,885	7,333	186,841
1956-57	57,852	60,945	25,836	14,496	4,610	7,372	171,448
1957-58	55,511	60,463	19,150	9,572	4,203	7,342	156,516
1958-59	65,077	57,362	26,113	11,351	3,549	7,108	170,909
1959-60	69,285	62,533	29,579	10,912	4,565	7,492	184,677

NET VALUE PER HEAD OF POPULATION. (£ s. d.)

1955-56	17	17	7	26	5	1	21	3	4	18	7	2	7	6	0	22	19	6	20	1	3
1956-57	16	2	6	23	1	8	18	14	4	16	16	7	6	14	8	22	12	0	17	19	8
1957-58	15	3	5	22	6	8	13	12	11	10	16	0	6	0	4	21	19	6	16	1	3
1958-59	17	9	4	20	13	4	18	6	3	12	10	3	4	19	1	20	16	7	17	3	6
1959-60	18	5	4	21	18	8	20	8	6	11	13	9	6	5	11	21	11	5	18	3	2

(a) No deduction has been made for depreciation and maintenance or for costs of materials used in the process of production in the Poultry (for States other than Queensland) and Bee-farming Industries. (b) No deduction has been made for costs of power, power kerosene, petrol and other oils. (c) Includes Northern Territory and Australian Capital Territory.

4. **Indexes of Quantum and Price of Farmyard, Dairy and Bee Production, 1955-56 to 1959-60.**—For details of the methods of calculating these indexes and of the weights used see Chapter XXX.—Miscellaneous.

INDEXES OF QUANTUM^(a) AND PRICE OF FARMYARD, DAIRY AND BEE PRODUCTION: AUSTRALIA.

(Base: Average 3 years ended June, 1939 = 100.)

Particulars.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
<i>Quantum(a) of Production—</i>					
Milk	123	119	111	120	123
Other Products	115	114	120	118	122
<i>Total Farmyard and Dairy ..</i>	<i>120</i>	<i>117</i>	<i>114</i>	<i>119</i>	<i>123</i>
Total per Head of Population	89	84	80	82	83
<i>Price—</i>					
Milk	380	365	375	372	383
Other Products	423	438	399	421	450
<i>Total Farmyard and Dairy ..</i>	<i>392</i>	<i>386</i>	<i>382</i>	<i>386</i>	<i>402</i>

(a) Indexes of value at constant prices, i.e., quantities revalued at average unit values of base years (1936-37 to 1938-39).

§ 3. Dairy Cattle and Dairy Products.

1. **Dairy Herds.**—Lack of uniformity in the schedules used by the various States in the collection of livestock statistics makes it impossible to measure with complete accuracy the growth of dairy herds prior to 1943. Statistics of dairy cows—which form the largest part of herds—are, however, available on a comparable basis for a series of years. From 1,326,524 in 1902, their numbers rose gradually, with frequent reversals in trend, to a peak of 3,292,048 in 1936. This level was not reached again until 1956, when the number recorded was 3,403,507, and 1957, when the record level of 3,451,450 in March, 1957, was attained. In the last three years, however, numbers have declined gradually to 3,243,472 in 1960.

There is a preponderance of dairy cattle in Victoria and Tasmania, while in New South Wales and South Australia the proportion of dairy to all cattle is high. In Queensland, the Northern Territory, and Western Australia, other cattle predominate, the main use of cattle in these areas being for the production of beef. The numbers of dairy cattle in Australia classified according to age and sex are shown in the following tables for the average of the three-year periods ended March, 1939, 1949 and 1959, and for the years 1956 to 1960.

NUMBER OF DAIRY CATTLE: AUSTRALIA.

Period.	Dairy Cows (in milk and dry).	Dairy Heifers 1 year and over.	Dairy Calves under 1 year.	Dairy Bulls.	Total Dairy Cattle.
<i>Average for three years ended</i>					
31st March—					
1939	3,210,324	(a)	(a)	(a)	(a)
1949	3,133,266	827,609	712,688	107,708	4,781,271
1959	3,365,390	839,048	670,956	110,656	4,986,050
<i>Year ended 31st March—</i>					
1956	3,403,507	846,204	694,968	114,069	5,085,748
1957	3,451,450	835,620	716,321	114,759	5,118,150
1958	3,361,574	851,407	667,836	112,892	4,993,709
1959	3,283,147	830,116	628,710	104,317	4,846,290
1960	3,243,472	781,862	752,107	99,925	4,877,366

(a) Not available.

The following table shows the total dairy cattle in each State and the Australian Capital Territory for the same periods as in the previous table, except for 1939 details for which are not available by States.

NUMBER OF DAIRY CATTLE: STATES.

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
Average for three years ended 31st March—								
1949 ..	1,289,846	1,467,100	1,379,172	272,073	226,340	143,809	2,931	4,781,271
1959 ..	1,307,834	1,699,301	1,295,141	257,569	221,694	201,383	3,128	4,986,050
Year ended 31st March—								
1956 ..	1,337,815	1,662,548	1,383,739	264,303	223,584	183,602	3,157	5,058,748
1957 ..	1,334,210	1,720,564	1,374,674	265,484	224,061	195,894	3,263	5,118,150
1958 ..	1,307,567	1,723,845	1,269,969	258,798	225,651	204,773	3,106	4,993,709
1959 ..	1,281,726	1,653,493	1,240,779	248,425	215,369	203,482	3,016	4,846,290
1960 ..	1,278,051	1,678,359	1,255,009	239,603	216,508	206,770	3,066	4,877,366

Maps showing the distribution of dairy cattle in Australia at 31st March, 1955 and 1948, appear on page 910 of Official Year Book No. 43 and page 906 of Official Year Book No. 39, respectively.

2. Size of Dairy Herds.—For information on the size of dairy herds *see* references to bulletin *Size Classification of Rural Holdings*, 1955–56, in § 1, para. 2, page 977, and in the note at the beginning of this chapter.

3. Total Milk, Butter and Cheese Production.—The total production of these commodities for each State in 1959–60 is shown below:—

UTILIZATION OF WHOLE MILK, PRODUCTION OF BUTTER AND CHEESE, 1959-60.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Australia.
MILK ('000 GALLONS).								
Used for—								
Butter ..	(a) 205,380	(b) 415,118	(c) 175,744	26,612	34,137	55,269	11	912,271
Cheese ..	9,134	44,315	19,644	23,729	3,215	819	..	100,856
Condensing and concentrating	15,611	53,981	9,580	..	482	2,982	..	82,636
Other purposes	118,264	84,909	47,594	28,142	19,715	11,156	958	310,738
Total ..	348,389	598,232	252,562	78,483	57,549	70,226	969	1,406,501
BUTTER (TONS).								
In Factories ..	(d) 41,373	(e) 89,388	(e) 38,932	6,194	7,376	11,744	..	195,007
On Dairy and other Farms ..	1,384	520	313	124	58	144	2	2,545
Total ..	42,757	89,908	39,245	6,318	7,434	11,888	2	197,552
CHEESE (TONS).								
In Factories ..	4,348	19,217	(f) 8,492	10,593	1,443	328	..	44,421
On Dairy and other Farms ..	..	47	..	..	11	38	..	96
Total ..	4,348	19,264	8,492	10,593	1,454	366	..	44,517

(a) Includes 6,031,000 gallons of milk, the produce of New South Wales, sent as cream to factories in Victoria and Queensland. (b) Includes 1,443,000 gallons of milk, the produce of Victoria, sent as cream to New South Wales. (c) Includes 542,000 gallons of milk, the produce of Queensland, sent as cream to New South Wales. (d) Includes butter made from cream, the produce of Victoria and Queensland. (e) Includes butter made from cream, the produce of New South Wales. (f) Includes cheese made in establishments not classified as factories.

4. **Whole Milk.**—(i) *Production and Utilization.* During the three years ended 1938–39, approximately 78 per cent. of Australia's milk supply was used for making butter, 5 per cent. for cheese manufacture, 3 per cent. for condensery products and 14 per cent. for fluid consumption and other purposes. There has since been a considerable decline in the proportion of milk used for butter-making, with corresponding increases in the quantities used for other purposes. For the average of the three years ended 1958–59, 65 per cent. of the total milk supply was used for butter, 7 per cent. for cheese, 6 per cent. for condensery products and 22 per cent. for other purposes.

Details of the production of whole milk for various purposes are shown in the following table for each of the years 1955–56 to 1959–60 compared with the averages for the three-year periods ended 1938–39, 1948–49 and 1958–59:—

PRODUCTION AND UTILIZATION OF WHOLE MILK: AUSTRALIA.

('000 Gallons.)

Period.	Total Production.	Quantity used for—			
		Butter (Factory and Farm).	Cheese (Factory and Farm).	Condensery Products.	Other purposes. (a)
Average for three years ended—					
1938–39	1,142,006	891,742	54,934	33,226	162,104
1948–49	1,153,248	738,377	91,642	78,739	244,490
1958–59	1,330,853	865,347	90,561	79,687	295,258
Year—					
1955–56	1,402,012	962,397	84,021	71,324	284,270
1956–57	1,357,942	890,833	98,233	78,123	290,753
1957–58	1,264,421	811,583	78,550	79,864	294,424
1958–59	1,370,197	893,626	94,900	81,074	300,597
1959–60	1,406,501	912,271	100,856	82,636	310,738

(a) Principally fluid milk for domestic purposes.

In the following table, particulars of the production of whole milk in the several States are shown for the years 1955–56 to 1959–60 compared with the averages for the three years ended 1938–39, 1948–49 and 1958–59. Victoria is the principal milk-producing State and in 1959–60 the output from that State, 598.3 million gallons, represented 43 per cent. of total production. Output from New South Wales in that year was 348.4 million gallons, or 25 per cent. of the total, and that of Queensland 252.6 million gallons (18 per cent.). Production in the remaining States accounted for 14 per cent. of the total Australian output.

TOTAL PRODUCTION OF WHOLE MILK.

('000 Gallons.)

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
Average for three years ended—								
1938–39	319,003	403,152	275,898	68,429	42,358	32,803	363	1,142,006
1948–49	280,460	445,517	252,469	92,587	49,004	32,638	573	1,153,248
1958–59	307,514	578,529	240,446	84,185	54,218	65,032	929	1,330,853
Year—								
1955–56	333,942	577,475	282,296	90,342	55,668	61,405	884	1,402,012
1956–57	306,298	587,199	252,336	89,882	57,008	64,262	957	1,357,942
1957–58	288,565	565,439	210,827	80,606	53,480	64,655	849	1,264,421
1958–59	327,679	582,948	258,174	82,071	52,167	66,178	980	1,370,197
1959–60	348,389	598,323	252,562	78,483	57,549	70,226	969	1,406,501

(ii) *Production per Cow.* The quantity of milk produced by a dairy cow can be as high as 1,000 gallons a year, varying greatly with breed, locality and season. For the whole of Australia, for all dairy cows and for all seasons prior to 1916, production averaged considerably less than 300 gallons per annum. In later years, not only has there been an improvement in the quality of the cattle, but the application of scientific methods has been continually extended, and the 300-gallon average has been exceeded in each year since 1924. More than 400 gallons per cow has been obtained in four of the last six years. In 1959-60, the average yield was 431 gallons. The annual average yields per cow shown in the following table are obtained by dividing the total production of whole milk for the year ended June by the mean of the number of dairy cows (in milk and dry) at 31st March of that year and of the preceding year. They are, in effect, based on the approximate number of dairy cows which were in milk during any part of the year. The average shown is, therefore, less than that for cows which were yielding during the greater part of the year, but it may be accepted as sufficiently reliable to show the general trend:—

AVERAGE MILK PRODUCTION PER DAIRY COW.

(Gallons.)

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
Average for three years ended—								
1938-39	315	439	298	442	353	349	349	354
1948-49	310	506	267	565	370	419	328	371
1958-59	324	521	267	513	407	537	420	393
Year—								
1955-56	355	551	301	538	444	554	391	419
1956-57	314	538	267	541	424	560	424	396
1957-58	302	505	233	488	398	529	383	371
1958-59	355	520	302	510	398	521	453	412
1959-60	382	544	301	504	452	554	447	431

5. *Factory System.*—(i) *General.* Cream separation and butter-making are often carried on together under the co-operative system. The establishment of large central butter factories, either on the co-operative system or on an independent basis, has resulted in a considerable reduction in the cost of manufacture. The product is also of a more uniform quality, and whereas formerly the average quantity of milk used per pound of hand-made butter was about 3 gallons, factory butter requires about 2½ gallons. In addition, subsidy payments by the Commonwealth Government are made only on factory-produced butter. As a result, the production of farm-made butter has declined substantially, and in 1959-60 represented only about 1.3 per cent. of all butter made. A similar position exists in the cheese-making industry where a negligible amount is now made on farms.

(ii) *Number of Factories.* In 1959-60, factories in Australia engaged in the processing of milk into butter or cheese or the various condensery products numbered 363 and were distributed among the States as follows:—New South Wales, 77; Victoria, 131; Queensland, 75; South Australia, 39; Western Australia, 19; and Tasmania, 22. More details regarding numbers of factories, output, etc., are given in Chapter VI.—Manufacturing Industry.

6. *Butter Production.*—There was a steady increase in the annual output of butter for many years prior to the 1939-45 War. Following the record output of 211,987 tons in 1939-40, the general trend of butter production declined until 1946-47, when 143,308 tons were produced. Output increased again in subsequent years and in 1955-56 was 208,911 tons, the highest figure recorded in post-war years. Production in 1959-60, 197,552 tons, was the highest since 1955-56. The foregoing figures include butter produced on farms which has shown a decline from 8,714 tons in 1938-39 to 2,545 tons in 1959-60.

The following table shows production of butter in factories and on farms in each State for the years 1955-56 to 1959-60 compared with the averages for the three-year periods ended 1938-39, 1948-49 and 1958-59.

BUTTER PRODUCTION IN FACTORIES AND ON FARMS.

(Tons.)

Period.	Factory Production.							Factory and Farm Production, Aust.(a)
	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.	
Average for three years ended—								
1938-39	49,665	61,566	52,637	7,977	5,803	3,934	181,582	190,827
1948-49	31,394	58,715	42,243	9,028	6,632	4,484	152,496	157,064
1958-59	33,832	87,659	38,131	7,509	6,812	10,618	184,561	187,393
Year—								
1955-56	41,066	90,608	48,189	8,562	7,404	9,962	205,791	208,911
1956-57	33,826	88,598	41,089	8,440	7,462	10,426	189,841	192,854
1957-58	29,939	86,236	32,281	7,032	6,807	10,623	172,918	175,757
1958-59	37,733	88,143	41,022	7,054	6,166	10,805	190,923	193,568
1959-60	41,373	89,388	38,932	6,194	7,376	11,744	195,007	197,552

(a) Includes small quantities produced in the A.C.T.

7. Cheese Production.—Prior to 1937-38, the annual production of cheese in factories and on farms had not reached 20,000 tons. From then on, it increased, but with frequent reversals of trend, to an output of 49,057 tons in 1953-54. Production has fluctuated in succeeding years between 35,000 and 45,000 tons, 44,517 tons being recorded in 1959-60.

The following table shows production of cheese in factories and on farms in each State in the years 1955-56 to 1959-60 compared with the averages for the three years ended 1938-39, 1948-49 and 1958-59 :—

CHEESE PRODUCTION IN FACTORIES AND ON FARMS.

(Tons.)

Period.	Factory Production.							Factory and Farm Production, Australia, (a)
	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Aust.(a)	
Average for three years ended—								
1938-39	3,280	7,206	5,277	6,866	427	1,424	24,480	24,848
1948-49	2,385	17,378	8,916	11,984	969	641	42,273	42,343
1958-59	4,368	17,607	6,844	11,218	1,127	335	41,499	41,567
Year—								
1955-56	3,379	13,996	7,579	12,633	763	331	38,681	38,700
1956-57	4,019	20,542	7,137	11,958	1,182	333	45,171	45,216
1957-58	4,042	14,840	5,175	10,495	1,017	326	35,895	35,976
1958-59	5,044	17,441	8,220	11,200	1,181	345	43,431	43,509
1959-60	4,348	19,217	8,492	10,593	1,443	328	44,421	44,517

(a) Northern Territory and Australian Capital Territory: nil.

8. *Condensed, Concentrated and Powdered, etc., Milk Production.*—The manufacture of these products expanded greatly after 1938–39 to meet the needs of the Services during the 1939–45 War and for export purposes since the War. The average output of condensed, concentrated and evaporated full cream milk (sweetened and unsweetened) for the three years ended 1958–59 was three and a half times as high as the average for the three years ended 1938–39, while that of powdered milk (full cream and skim) was more than five times as high. Over the same period the quantity of whole milk used in the manufacture of the products shown below increased from 33.2 million gallons to 79.7 million gallons or by 138 per cent. These products are manufactured mainly in Victoria, which produced 64 per cent. of the total (in terms of whole milk equivalent) in 1959–60. New South Wales accounted for 20 per cent. and the remaining States for 16 per cent.

The following table shows details of the output of condensed, concentrated, powdered, etc., milk during the years 1955–56 to 1959–60, compared with the averages for the three years ended 1938–39, 1948–49 and 1958–59.

PRODUCTION OF CONDENSED, CONCENTRATED AND POWDERED, ETC., MILK: AUSTRALIA.

Period.	Full Cream Milk Products.				Total Whole Milk Equivalent of Full Cream Milk Products.	Milk By-products.						
	Condensed Concentrated and Evaporated Full Cream Milk.(a)		Powdered Full Cream Milk.	Infants' and Invalids' Foods. (c)		Condensed, Concentrated and Evaporated Skim Milk.	Powdered Skim Milk.	Powdered Butter-milk, mixed Skim and Butter-milk and Whey.				
	Sweetened. (b)	Unsweetened.										
									tons.	tons.	tons.	tons.
Average for three years ended—												
1938-39		18,702		9,464	1,131	33,226	(d)	(e)	(f)	701		
1948-49		28,452		16,650	10,182	78,739	(e)			3,078		
1958-59		36,322	29,137	18,373	13,846	79,687	5,649			29,758	5,748	
Year—												
1955-56		35,065	25,561	17,211	12,861	71,324	3,866			30,893	4,990	
1956-57		39,980	28,221	17,864	13,567	78,123	4,731			30,567	5,551	
1957-58		37,358	28,317	18,073	13,977	79,864	7,274			24,580	5,668	
1958-59		31,627	30,872	19,183	13,993	81,074	4,943			34,128	6,024	
1959-60		33,663	34,585	19,591	15,985	82,636	4,514			41,204	7,444	

(a) Includes mixtures of full cream and skim milk and mixtures of full cream, skim and buttermilk. (b) Includes Coffee and Milk. (c) Includes malted milk and milk sugar (lactose). (d) Not available separately—included in condensed, concentrated and evaporated full cream milk. (e) Not available separately—included in powdered full cream milk. (f) Excludes powdered whey.

9. *Local Consumption of Butter and Cheese.*—In the last year of the war-time and post-war rationing of butter, 1949–50, consumption was 25.3 lb. per head per annum compared with an average of 32.9 lb. during the years 1936–37 to 1938–39. Following the cessation of rationing, consumption rose sharply to 31.2 lb. in 1951–52, and until 1955–56, fluctuated between 29 lb. and 31 lb. per head per annum. It has since declined to 26.2 lb. per head in 1959–60.

Cheese consumption rose considerably during the period of butter rationing, from 4.4 lb. per head pre-war to 6.3 lb. per head in 1947–48. Consumption has fluctuated considerably since then between a minimum of 5.2 lb. in 1948–49 and a maximum of 6.8 lb. in 1957–58.

The following table shows details of the production and disposal of butter and cheese for each of the years 1955–56 to 1959–60 compared with the averages for the three years ended 1938–39, 1948–49 and 1958–59.

PRODUCTION AND DISPOSAL OF BUTTER AND CHEESE: AUSTRALIA.

Period.	Changes in Stocks. (a)	Production.	Exports. (b)	Apparent Consumption in Australia.	
				Total	Per Head per annum.

BUTTER.					
Average for three years ended—	'000 tons.	'000 tons.	'000 tons.	'000 tons.	lb.
1938-39.. ..	..	190.8	90.0	100.8	32.9
1948-49.. ..	-3.5	157.1	75.9	84.7	24.8
1958-59.. ..	-0.7	187.4	69.7	118.4	27.2
Year—					
1955-56.. ..	+4.7	208.9	83.8	120.4	29.0
1956-57.. ..	-4.3	192.9	77.8	119.4	28.0
1957-58.. ..	+2.8	175.8	52.2	120.8	27.8
1958-59.. ..	-0.4	193.6	78.9	115.1	25.9
1959-60.. ..	..	197.6	78.7	118.9	26.2

CHEESE.					
Average for three years ended—	'000 tons.	'000 tons.	'000 tons.	'000 tons.	lb.
1938-39.. ..	..	24.9	11.5	13.4	4.4
1948-49.. ..	-0.7	42.4	24.3	18.8	5.5
1958-59.. ..	+3.5	41.6	13.1	25.0	5.8
Year—					
1955-56.. ..	-1.8	38.7	16.6	23.9	5.7
1956-57.. ..	+5.6	45.2	17.1	22.5	5.3
1957-58.. ..	-2.1	36.0	8.6	29.5	6.8
1958-59.. ..	+6.9	43.5	13.6	23.0	5.2
1959-60.. ..	-1.8	44.5	17.5	28.8	6.3

(a) Includes allowance for movements in stocks other than those held in main cold stores.
 (b) Figures for butter include ghee expressed as butter as well as butter shipped as ships' stores. Figures for cheese include ship's stores after allowance for a small quantity of cheese imported.

10. **Butter and Cheese Equalization Schemes.**—During the period from January, 1926, to April, 1934, a voluntary scheme for equalizing returns to all participating factories from their sales of butter, known as the "Paterson Plan" was in operation. This had the effect of stabilizing the price of butter in Australia. Details of this scheme may be found on page 1028 of Official Year Book No. 38 and in earlier issues.

On 1st May, 1934, the "Paterson Plan" was superseded by a compulsory price equalization plan, details of which are shown on page 1029 of Official Year Book No. 38 and earlier issues. This compulsory plan was invalidated in 1936 by the decision of the Privy Council which declared in the James (Dried Fruits) Case that the Commonwealth had no power under the Constitution to regulate trade between the States.

Since 1936, the butter price equalization scheme has operated by voluntary action based on agreements between manufacturers and the Commonwealth Dairy Produce Equalization Committee Ltd. The Committee, which comprises members of the State Dairy Products Boards and other persons representing the industry, enters into agreements with manufacturers to secure to them equal rates from sales of butter and cheese, and for this purpose may fix basic prices at which these products sold in Australia or abroad are to be taken into account. The effect is that local and export trade are distributed in equitable proportions among the manufacturers by means of quotas. The Committee fixes basic prices and equalizes returns to factories through an Equalization Fund. The States originally participating in the scheme were New South Wales, Victoria, Queensland and Tasmania in respect of both butter and cheese, and South Australia in respect of cheese. South Australia and Western Australia entered the scheme in respect of butter on 1st April, 1946, and Western Australia extended its participation to include cheese in January, 1947.

Details are given in para. 15 on page 990 of the returns realized on local and overseas sales and of the average equalization rate for the years ended June, 1956 to 1960. Details are also given in para. 12 of the wholesale prices of butter and cheese for home consumption as fixed by State Prices Authorities or as determined by the Dairy Produce Equalization Committee.

11. Casein Equalization Scheme.—A similar equalization scheme to that for butter and cheese has been operated by the Commonwealth Dairy Produce Equalization Committee Ltd. for casein since 1952. Average realizations under the scheme were 180s. 9.9d. per cwt. in 1955–56, 184s. 6.6d. in 1956–57, 185s. 3.6d. in 1957–58, 171s. 7.9d. in 1958–59 and 175s. 7.5d. in 1959–60.

12. Wholesale Price of Butter and Cheese in Australia.—Since 20th September, 1948, when the Commonwealth Government ceased to exercise price control, the fixation of the wholesale prices of butter and cheese has been a matter for State Prices Authorities. At present, however, the power to fix prices is being exercised in only two States, Queensland and South Australia, the prices in all other States being determined by the Commonwealth Dairy Produce Equalization Committee Ltd. Details of prices operating in each of the States since 1st July, 1952, are shown in the following table.

WHOLESALE PRICES OF BUTTER AND CHEESE: AUSTRALIA.(a)

(s.d. per cwt.)

Date from which Prices became Effective.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.
BUTTER.						
1st July, 1952	417 8	417 8	417 8	417 8	422 4	417 8
26th July, 1955	452 8	452 8	451 6	450 4	452 8	452 8
1st July, 1956	466 8	466 8	465 6	464 4	466 8	466 8
1st July, 1958	485 4	485 4	484 2	484 2	485 4	485 4
1st July, 1960	501 8	501 8	500 6	501 8	501 8	501 8
CHEESE.						
1st July, 1952	256 8	256 8	256 8	256 8	256 8	256 8
26th July, 1955	275 4	275 4	275 4	274 2	275 4	275 4
1st July, 1956	282 4	282 4	282 4	281 2	282 4	282 4
1st July, 1958	291 8	291 8	291 8	291 8	291 8	291 8
1st July, 1960	296 4	296 4	296 4	296 4	296 4	296 4

(a) Maximum prices fixed by State Prices Authorities or as determined by the Commonwealth Dairy Produce Equalization Committee Ltd., for choicest grade bulk butter and cheese.

13. Marketing of Dairy Products.—(i) *The Dairy Produce Export Control Act 1924–1958.* Introduced at the request of the dairying industry, this Act was passed by the Commonwealth Parliament with the object of organizing the overseas marketing of Australian dairy produce. A Dairy Produce Control Board was appointed and was in existence from 1924 to 1935. The Board regulated shipments to ensure regularity of supply in the London market, controlled forward selling, obtained reductions in overseas freights and insurance rates, and participated in an advertising campaign in the United Kingdom.

Prior to the appointment of the Dairy Produce Control Board, a voluntary body—the Australian Dairy Council—was established to advise and make recommendations to the Governments on problems connected with the production, manufacture and quality of dairy produce, pasture improvements and diseases of dairy cattle.

Following a recommendation by the Australian Agricultural Council, the functions of these bodies were combined by an amending Act of 1935 under the Australian Dairy Produce Board and provision was made for the allocation of money from the Board's funds for research and investigation into pastures, diseases of dairy cattle and the quality of butter. The functions of the Board were later extended to enable it to advise the Government in connexion with the transport of dairy produce, the securing of new markets, the expansion of existing markets and other matters.

The Australian Dairy Produce Board was re-constituted in 1947 by an amendment to the Dairy Produce Export Control Act, its membership being reduced from seventeen to twelve. The functions of the Board were extended to enable it to purchase and sell, on behalf of the Commonwealth, dairy produce intended for export, and to control all matters concerning the handling, storage, protection, treatment, transfer and shipment of the produce so purchased or sold. In 1953, the direct dairy farmer representation on the Board was increased from two to three members, thus raising the total membership from twelve to thirteen.

In April, 1954, the Act was further amended to prepare for the implementation of an export marketing plan to follow the expiration of the United Kingdom-Australia Butter and Cheese Contract. The amendment enabled the Board to purchase dairy produce intended for export to the United Kingdom and to sell such produce on behalf of the dairying industry in lieu of its previous function of selling on behalf of the Commonwealth Government. In the interests of the stability of the industry, the Act provides that the Board may be the sole Australian exporter of butter and cheese to the United Kingdom.

The Dairy Produce Export Control Act was again amended in 1958, principally to increase the membership of the Board by one to a total of 14 members. The additional member, designated the Administrative Member, is charged with the task of executing the Research and Sales Promotion campaign.

(ii) *The Dairy Produce Export Charges Act 1924-1937.* This Act provides for the imposition of a levy on all butter and cheese exported from Australia to cover the administrative expenses of the Board and for advertising and other purposes. The rate of the levy is fixed by regulation.

(iii) *Butter and Cheese Contracts.* Details of the war-time contracts arranged between the United Kingdom and Australian Governments, whereby the former undertook to purchase Australia's surplus butter and cheese, were shown on pages 985 and 986 of Official Year Book No. 37. The purchase of butter and cheese from 1944-45 to 1954-55 was covered by the Long-term Purchase Agreement. Details of this Agreement and of the prices paid for various grades of butter and cheese each year under the Agreement were given in pages 943 and 944 of Official Year Book No. 42 and in earlier issues.

14. Commonwealth Subsidies and Stabilization Plans.—(i) *Butter, Cheese and Processed Milk Products.* Under the provisions of the various Dairy Industry Assistance Acts, the first of which was passed in 1942, the Commonwealth Government has provided subsidies on milk supplied for the manufacture of butter, cheese and processed milk products. Subsidies were paid on a seasonal basis prior to 1st April, 1946, but from that date have been on a flat rate basis. Subsidies are distributed by the Commonwealth Dairy Produce Equalization Committee Ltd. through factories to milk producers by payments on butter, cheese and processed milk products manufactured. Subsidy on milk supplied for the manufacture of processed milk products was discontinued from 1st July, 1948, to 30th June, 1949, and again from 1st July, 1952.

The first of the two five-year stabilization plans came into operation on 1st July, 1952. Under this plan, the Commonwealth Government, with the approval of the States, determined the ex-factory prices of butter and cheese, guaranteed to dairy farmers a return, based upon costs of efficient production, in respect of quantities of butter and cheese sold within the Commonwealth, plus an additional 20 per cent. (if produced), and agreed to make available an amount by way of subsidy to lift the return on that part of output covered by the guarantee to the guaranteed level. The second five-year stabilization plan, which came into operation on 1st July, 1957, continued all the important features of the first plan. A new feature, however, was that any subsidy made available under the scheme should be on the basis of a fixed amount in any dairying year.

The actual amount of subsidy paid by the Commonwealth Government was in excess of its original commitment in 1955-56, when, to assist in offsetting a fall in export returns, the Government agreed to increase subsidy payments to a fixed figure of £14,500,000. In each of the years 1956-57 to 1960-61, a fixed amount of £13,500,000 was provided.

In 1958, following a period of low incomes due to drought and low export returns, the Government decided to give additional support to the dairy industry. This support took the form of underwriting a final equalization payment to factories on total production of butter and cheese for the 1958-59 season. The amount underwritten for butter was 40d. per lb. commercial butter basis. The Government also decided that it would consider applying the same principle of underwriting a final equalized return at levels determined by it each year, after an examination of all relevant factors for the remaining period of the 1957-62 five-year stabilization plan. For the 1959-60 and 1960-61 seasons, the underwriting of a final minimum return of 40d. per lb. commercial butter was again determined. The principal value underlying this guarantee is that it enables the Commonwealth Dairy Produce Equalization Committee Ltd. to make a higher initial payment to factories than would otherwise be possible without risk of over-payment.

Following representations by industry organizations, the Commonwealth Government established the Joint Dairy Industry Advisory Committee in November, 1946, comprising a chairman nominated by the Government, four representatives of Commonwealth Government Departments and four industry representatives from the several States. The Committee's functions, broadly, were to advise and assist in conducting cost and other surveys of dairy farm production and to act as an advisory body to the Government in these matters. From 1st April, 1947, to 30th June, 1952, the rates of overall return to milk producers determined by the Commonwealth Government for the purpose of subsidy payments were based on recommendations made by the Committee following surveys of production costs in the dairy industry.

Early in 1953, the Dairy Industry Investigation Committee, an independent body consisting of three members, was appointed to advise the Commonwealth Government on the guaranteed return to producers during 1953-54. The Committee was re-established in March, 1954, to advise the Government on the guaranteed return for each year of the remaining three-year period of the Stabilization Plan. For the current five-year plan, the Committee has been re-appointed to determine the cost of efficient production of butter-fat only.

Amounts realized on exports of butter and cheese in excess of the f.o.b. equivalent of the guaranteed return have been credited to the Dairying Industry Stabilization Fund, which was established in July, 1948, for the purpose of stabilizing returns from exports. During 1951-52, the Stabilization Fund met the deficiency in respect of all exports which did not return sufficient to meet the basic return to the factory. From 1st July, 1952 to 30th June, 1957, it was available to the industry to be used, in whatever manner it considered desirable, to make good any deficiency in respect of all exports other than the 20 per cent. provided for under the Commonwealth Government's Five-year Stabilization Plan. The Act was amended in 1957 to enable the Board to use the fund for such other purposes as are approved by the Minister for Primary Industry. After allowing for outstanding debits, the amount standing to the credit of the Dairying Industry Stabilization Fund at 30th June, 1960, totalled approximately £1,620,497.

(ii) *Whole Milk.* In addition to the subsidies referred to above, the Commonwealth Government subsidized the production of whole milk consumed directly from 1943-44 to 1948-49. Details of the amounts distributed during each year will be found in Official Year Book No. 38, page 1031.

15. Average Returns from Butter and Cheese Sold and Assessed Farm Production Costs.—The first of the two following tables shows, in respect of butter and cheese, particulars of the rates realized on local, interstate and overseas sales and the average equalization and subsidy rates in operation for the years ended June, 1956 to 1960. The second table shows the distribution between factory and farm of the overall return to manufacturers for butter. The assessed farm production cost for commercial butter is also shown for comparison with the average returns to dairy farmers.

BUTTER AND CHEESE: RATES REALIZED ON SALES, AVERAGE EQUALIZATION RATES AND RATES OF COMMONWEALTH SUBSIDY UNDER DAIRY INDUSTRY ASSISTANCE ACTS.

(Source: Commonwealth Dairy Produce Equalization Committee Ltd.)

(Rates s. d. per cwt.)

Year ended 30th June.	Rates Realized on Sales.			Average Equalization Rate.	Rate of Subsidy.	Rate of Overall Return to Manu- facturers.
	Local.	Interstate.	Overseas.			

BUTTER.

1956	438 1.5	419 7.3	353 0.2	400 10.5	65 1.0	465 11.5
1957	453 5.1	425 4.9	298 6.7	392 6.6	65 7.8	458 2.4
1958	453 11.5	431 11.3	238 4.3	380 9.3	71 7.8	452 5.1
1959	468 8.1	448 7.3	334 3.2	412 11.1	64 10.9	477 10.0
1960	(a)	(a)	(a)	417 5.5	63 6.0	480 11.5

CHEESE.

1956	264 0.1	259 9.5	262 4.1	31 5.7	293 9.8
1957	267 11.2	166 8.4	223 11.9	26 2.6	250 2.5
1958	270 7.4	137 8.0	240 0.7	35 11.2	275 11.9
1959	279 0.2	274 0.4	277 1.1	29 7.5	306 8.6
1960	(a)	(a)	247 10.7	29 1.4	277 0.1

(a) Not yet available.

COMMERCIAL BUTTER: OVERALL RETURNS AND ASSESSED FARM PRODUCTION COSTS.

(Pence per lb.)

Year ended 30th June.	Average Overall Returns on Commercial Butter.			Assessed Farm Production Cost.(a)
	Rate of Overall Return to Manufacturer.	Manufacturing Cost.	Return to Dairy Farmer.	
1956.. ..	49.924	4.626	45.298	49.29
1957.. ..	49.093	4.626	44.467	51.00
1958.. ..	48.474	4.626	43.848	51.00
1959.. ..	51.196	4.826	46.370	53.00
1960.. ..	51.531	4.965	46.566	53.00

(a) Up to 1956-57, the figures shown are the guaranteed returns as recommended by the Dairy Industry Investigation Committee and accepted by the Commonwealth Government: from 1957-58, they represent the cost of production as found by the Dairy Industry Investigation Committee.

16. **Dairy Industry Extension Grant.**—An annual grant of £250,000, to be expended by State Governments for the purpose of promoting improved farming practices in the dairying industry, was first made by the Commonwealth Government for the five years from 1st July, 1948. This assistance was continued by the Commonwealth Government for a further period of five years from 1st July, 1953, again by means of annual grants of £250,000, and similarly for a further five years from 1st July, 1958, at the same rate.

17. **Dairy Industry Research and Sales Promotion.**—At the request of the Australian Dairy Industry Council, legislation was enacted in 1958 to provide for a sales promotion campaign for butter and cheese in Australia and also for research into industry problems.

The legislation provides for a statutory levy (the Dairy Produce Levy) to be imposed on all butter and cheese manufactured in Australia. The maximum rates of levy are $\frac{7}{8}$ d. per lb. on butter and $\frac{5}{8}$ d. per lb. on cheese, but the initial rates which commenced in November, 1958, were $\frac{3}{8}$ d. per lb. on butter and $\frac{1}{8}$ d. per lb. on cheese. The proceeds from the levy were divided equally between research and sales promotion. The rates of levy operative from November, 1959, were increased to the maximum provided under the Act, the increase being utilized solely for the purposes of intensifying the sales promotion campaign.

The Commonwealth Government agreed to contribute one half of the costs incurred on approved projects included in the programme of research, with a maximum contribution of £1 for £1 against funds raised by way of levy and allocated to research. The sales promotion programme is financed solely by the levy. The levy has yielded £699,469 to 31st January, 1961. An amount of £425,790 has been allocated to sales promotion and £273,679 to research. Research funds have benefited by the Commonwealth's contribution of an amount equal to half the actual expenditure from levy funds for research.

The scheme is administered by the Australian Dairy Produce Board, which, in respect of research, is advised by a statutory committee—the Dairy Produce Research Committee.

18. Oversea Trade in Butter, Cheese and Milk.—(i) *General.* The production of butter and cheese in Australia is considerably in excess of local requirements and consequently a substantial surplus is available for export overseas. In normal circumstances, the extent of this surplus is chiefly dependent upon seasonal conditions. Exports of butter averaged 69,700 tons during the three years ended 1958–59, compared with 75,900 tons for the three years ended 1948–49 and 90,000 tons for the three years ended 1938–39. Exports of cheese for the same periods were 13,100 tons, 24,300 tons and 11,500 tons respectively.

During 1938–39, 96,900 tons of butter (95 per cent. of all butter exported) were shipped to the United Kingdom. With the decline in total exports, there was also a substantial reduction in the amount shipped to the United Kingdom up till 1954–55. This increased again to 72,400 tons (88 per cent.) in 1955–56, but has fallen consistently since then to 59,400 tons in 1959–60 (77 per cent.).

In 1938–39, exports of cheese totalled 16,000 tons, of which 15,500 tons or 97 per cent. were exported to the United Kingdom. Of the total of 18,500 tons exported in 1959–60, 15,300 tons or 83 per cent. were shipped to the United Kingdom.

Total quantities and values of exports of Australian origin of butter, cheese and condensed, concentrated, etc., milk and cream are shown on page 999.

(ii) *Butter and Cheese Exports graded according to Quality.* All butter and cheese exported comes under the provisions of the Exports (Dairy Produce) Regulations and is subject to the supervision, inspection and examination of officers appointed for that purpose. These commodities are graded according to quality which has been fixed by regulation as follows:—Flavour and aroma, 50 points; texture, 30 points; and condition, 20 points. Butter and cheese graded at 93 to 100 points is of choicest quality; at 90 to 92 points, first quality; at 86 to 89 points, second quality; and at 80 to 85 points, pastry or cooking quality or, in the case of cheese, third quality.

In the following table, particulars are given of the relative proportions of butter and cheese graded for export according to quality. Further details, which include actual quantities by States, are to be found in *Primary Industries, Part I.—Rural Industries*, 1958–59, Bulletin No. 53.

BULK BUTTER AND CHEESE GRADED FOR EXPORT: AUSTRALIA.
(Per Cent.)

Grade.	Butter.			Cheese.		
	1957–58.	1958–59.	1959–60.	1957–58.	1958–59.	1959–60.
Choicest	61.0	58.8	62.9	11.8	7.7	9.9
First Quality	28.2	30.3	27.5	72.0	78.3	77.2
Second Quality	8.1	8.4	9.6	16.2	14.0	12.9
Third Quality(a)	2.7	2.5	(b)	(b)	(b)	(b)
Total	100.0	100.0	100.0	100.0	100.0	100.0

(a) Includes rejected.

(b) Included with Second Quality.

§ 4. Pigs and Pig Products.

1. **Pigs.**—The number of pigs in Australia first reached a million in 1905, while the record level of 1,797,340 was attained in 1941. At 31st March, 1960, 1,423,796 pigs were recorded, representing a 10 per cent. increase on numbers a year earlier. The number of pigs in each State and Territory for each of the five years 1956 to 1960 compared with the averages for the three-year periods ended March, 1939, 1949 and 1959, are given in the following table:—

NUMBER OF PIGS.

Period.	N.S.W.	Vic.	Qld.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust- ralia.
Average for three years ended—									
1938–39 ..	374,963	285,465	299,707	74,329	74,657	42,802	404	481	1,152,808
1948–49 ..	366,267	261,922	375,191	101,934	91,862	43,184	424	554	1,241,338
1958–59 ..	377,510	263,363	405,702	99,632	135,404	61,389	2,543	160	1,345,703
Year—									
1955–56 ..	343,030	227,223	372,871	72,920	99,097	49,498	1,076	115	1,165,830
1956–57 ..	386,789	258,336	394,518	92,180	139,982	52,358	755	139	1,325,057
1957–58 ..	397,011	278,628	422,713	108,343	150,783	62,595	3,071	167	1,423,311
1958–59 ..	348,730	253,125	399,875	98,374	115,446	69,215	3,802	175	1,288,742
1959–60 ..	398,959	284,505	429,034	108,696	130,933	67,118	4,400	151	1,423,796

A long-term comparison of pig numbers is given in Chapter XXIII.—Pastoral Production. Maps showing the distribution of pigs in Australia at 31st March, 1955 and 1948, appear on page 912 of Official Year Book No. 43 and on page 908 of Official Year Book No. 39, respectively.

2. **Size of Pig Herds.**—For information on the size of pig herds *see* references to bulletins *Size Classification of Rural Holdings*, 1955–56 in § 1, para. 2, page 977, and in the note at the beginning of this chapter.

3. **Pigs Slaughtered.**—The number of pigs slaughtered during each of the years 1955–56 to 1959–60, compared with the averages for the three-year periods ended 1938–39, 1948–49 and 1958–59, is shown in the following table:—

PIGS SLAUGHTERED.

('000.)

Period.	Slaughtering Passed for Human Consumption.							Total Slaughtering (including Boiled Down).
	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Aust. (a)	
Average for three years ended—								
1938–39 ..	562	503	530	155	109	65	1,925	1,961
1948–49 ..	440	371	448	154	138	54	1,606	1,615
1958–59 ..	594	439	474	159	191	94	1,956	1,968
Year—								
1955–56 ..	576	395	459	132	160	88	1,817	1,828
1956–57 ..	541	382	438	124	157	82	1,730	1,740
1957–58 ..	638	473	462	175	219	91	2,066	2,077
1958–59 ..	604	462	521	179	197	108	2,077	2,087
1959–60 ..	584	458	530	171	168	115	2,033	2,042

(a) Including Australian Capital Territory and Northern Territory.

4. **Pigmeat.**—(i) *Production.* In the following table, details of the production of pigmeat in each State are shown for the years 1955–56 to 1959–60, together with the averages for the three-year periods ended 1938–39, 1948–49 and 1958–59.

PRODUCTION OF PIGMEAT (CARCASS WEIGHT).

(Tons.)

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aus- tralia.
Average for three years ended—									
1938-39 ..	25,558	24,569	23,522	7,538	4,322	2,893	5	43	(a)88,450
1948-49 ..	27,182	22,308	22,856	8,993	8,500	2,916	24	36	92,815
1958-59 ..	28,272	23,097	23,180	8,778	9,624	4,156	84	209	97,400
Year—									
1955-56 ..	30,543	21,492	21,921	8,124	7,922	3,635	67	204	93,908
1956-57 ..	28,879	21,178	20,200	7,367	7,475	3,341	59	200	88,699
1957-58 ..	28,683	24,343	23,131	9,516	11,405	4,216	82	239	101,615
1958-59 ..	27,253	23,770	26,210	9,451	9,991	4,911	113	187	101,886
1959-60 ..	26,252	23,383	27,106	9,161	9,029	5,352	103	187	100,573

(a) Excludes trimmings from baconer carcasses.

(ii) *Consumption.* As in the case of most other meats, pork was subject to rationing during the 1939-45 War and immediate post-war years, and consumption was at a much lower level than pre-war. In 1954-55, consumption of pigmeat (as pork or smallgoods) reached 10.2 lb., only slightly below the immediate pre-war average, but after falling to 8.7 lb. per head in 1956-57, has since risen to between 10 and 11 lb. per head. In the following table, details of the production and disposal of pigmeat are shown for the years 1955-56 to 1959-60 compared with the averages for the three-year periods ended 1938-39, 1948-49 and 1958-59.

PRODUCTION AND DISPOSAL OF PIGMEAT (CARCASS WEIGHT): AUSTRALIA.

Period.	Changes in Stock.	Production.	Exports.	Curing and Canning.	Apparent Consumption (as Pork or Smallgoods) in Australia.	
					Total.	Per Head per annum.
	'000 tons.	'000 tons.	'000 tons.	'000 tons.	'000 tons.	lb.
Average for three years ended—						
1938-39 ..	..	94.1	13.7	48.6	31.8	10.4
1948-49 ..	-1.2	92.8	6.3	63.4	24.3	7.1
1958-59 ..	..	97.4	0.8	52.7	43.9	10.1
Year—						
1955-56 ..	-0.7	93.9	1.1	53.2	40.3	9.7
1956-57 ..	+0.9	88.7	0.6	50.3	36.9	8.7
1957-58 ..	+0.8	101.6	1.0	52.6	47.2	10.9
1958-59 ..	-1.9	101.9	0.9	55.3	47.6	10.7
1959-60 ..	+0.8	100.6	0.4	52.2	47.2	10.4

5. *Bacon and Ham.*—(i) *Production.* As in the case of pork, the increased demand for bacon and ham during the 1939-45 War stimulated production to a level not previously attained. Production reached its peak in 1944-45 when 56,246 tons of bacon and ham were cured. This was followed by a decline in output in each succeeding year to 36,628 tons in 1951-52. Production has been maintained at about this level in subsequent years, 36,582 tons being recorded in 1959-60. Details of production are shown by States in the following table for each year 1955-56 to 1959-60, compared with the averages for the three-year periods ended 1938-39, 1948-49 and 1958-59.

PRODUCTION OF BACON AND HAM (CURED CARCASS WEIGHT).(a)
(Tons.)

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Average for three years ended—							
1938-39 ..	10,396	7,556	8,759	2,940	1,838	1,022	32,511
1948-49 ..	14,436	10,787	9,846	4,580	4,209	1,196	45,054
1958-59 ..	11,132	8,299	10,294	3,275	2,987	902	36,889
Year—							
1955-56 ..	11,463	7,929	10,224	3,587	3,231	1,040	37,474
1956-57 ..	10,322	7,721	9,901	3,415	3,054	917	35,330
1957-58 ..	11,468	8,345	9,682	3,340	2,952	880	36,667
1958-59 ..	11,606	8,832	11,299	3,069	2,955	910	38,671
1959-60 ..	11,012	8,558	9,948	3,115	3,061	888	36,582

(a) Pressed and canned bacon and ham have been converted to cured carcass weight for periods subsequent to 1948-49.

(ii) *Consumption.* Consumption per head declined in the early stages of the 1939-45 War from the pre-war average of 10.2 lb. per annum, but subsequently increased to 12.7 lb. in 1946-47. It has declined to about 7 lb. per head in recent years. Details of production and disposal of bacon and ham for the years 1955-56 to 1959-60, compared with the averages for the three-year periods ended 1938-39, 1948-49 and 1958-59 are shown in the following table:—

PRODUCTION AND DISPOSAL OF BACON AND HAM (CURED CARCASS WEIGHT)(a): AUSTRALIA.

Period.	Changes in Stock.	Production.	Exports.	Canning.	Apparent Consumption in Australia.	
					Total.	Per Head per annum.
Average for three years ended—	'000 tons.	'000 tons.	'000 tons.	'000 tons.	'000 tons.	lb.
1938-39 ..	..	32.5	1.0	..	31.5	10.2
1948-49 ..	..	45.1	3.1	2.1	39.9	11.7
1958-59 ..	+0.2	36.9	0.4	6.0	30.3	7.0
Year—						
1955-56 ..	+0.4	37.5	0.7	5.1	31.3	7.5
1956-57 ..	+0.4	35.3	0.5	5.7	28.7	6.8
1957-58 ..	-0.2	36.7	0.5	6.1	30.3	7.0
1958-59 ..	+0.3	38.7	0.3	6.4	31.7	7.1
1959-60 ..	-0.7	36.6	0.3	5.3	31.7	7.0

(a) Pressed and canned bacon and ham have been converted to cured carcass weight.

6. *Oversea Trade in Pigs and Pig Products.*—Total quantities and values of exports of Australian origin of pigs and pig products (bacon and ham, lard and frozen pork) for the years 1957-58 to 1959-60 are shown on page 999.

§ 5. Poultry-farming.

1. *General.*—Poultry-farming has been carried on in Australia for many years, and the State Departments of Agriculture have encouraged its development by appointing experts to advise on the care and management of poultry and by conducting egg-laying competitions. Originally the industry was conducted in conjunction with other branches of rural activity,

mainly dairying, but it is now a specialized and distinct industry and it is from this source that the bulk of the commercial production is obtained. Practically all farms keep poultry for the purpose of supplying their own domestic requirements and in many cases some supplies from this source are also marketed. In addition, many private homes keep small numbers of fowls in backyard runs to satisfy domestic needs or to help towards this object. Because of the incompleteness of data available on poultry throughout Australia, details of poultry numbers are not published.

2. **Recorded Production and Disposal of Eggs.**—(i) *Shell Eggs.* Available statistics of the production and disposal of eggs in Australia are restricted to those recorded by the Egg Boards of the several States. Details of production in the respective States as recorded by these authorities for the years 1955–56 to 1959–60 are shown in the following table:—

SHELL EGGS: PRODUCTION(a) RECORDED BY EGG BOARDS.
(*000 Dozen.)

State.	1955–56.	1956–57.	1957–58.	1958–59.	1959–60.
New South Wales	51,635	52,334	49,168	45,221	53,495
Victoria	24,985	24,874	25,956	23,447	26,521
Queensland	7,848	8,848	7,894	8,692	10,007
South Australia	11,820	11,375	11,219	9,692	10,041
Western Australia	7,687	8,589	8,602	7,577	7,476
Tasmania	943	912	(b)	(b)	(b)
Total	104,918	106,932	(c) 102,839	(c) 94,629	(c) 107,540

(a) Receipts from consignors and sales by producer agents.
Tasmania.

(b) Not available.

(c) Excludes

(ii) *Egg Pulp and Egg Powder.* Prior to the 1939–45 War, production of egg pulp was about 7 million lb. per annum. This was used almost entirely for the manufacture of cakes, pastry and biscuits, only negligible quantities being exported. Production was expanded greatly during the war years to meet the requirements of the Armed Services and was increased further in post-war years to supply a large export market and also a substantially increased home consumption. During recent years, however, production has been at a somewhat lower level. The production of dried egg powder, established in Australia in 1942 as a war-time measure for export purposes, was continued for some time after the war, but has since declined to negligible proportions.

Particulars of the production of whole egg pulp as recorded by the Egg Boards in the several States are shown in the following table:—

LIQUID WHOLE EGG: PRODUCTION RECORDED BY EGG BOARDS.
(*000 lb.)

State.	1955–56.	1956–57.	1957–58.	1958–59.	1959–60.
New South Wales	14,649	18,755	13,198	9,808	17,791
Victoria	6,879	6,245	6,591	3,473	6,460
Queensland	2,901	3,302	1,658	2,011	2,767
South Australia	5,991	4,501	4,461	2,495	3,210
Western Australia	1,532	2,024	2,855	1,600	1,122
Tasmania	236	133	(a)	(a)	(a)
Total	32,188	34,960	(b) 28,763	(b) 19,387	(b) 31,350

(a) Not available.

(b) Excludes Tasmania.

In addition to liquid whole egg, production was also recorded of liquid egg whites and liquid egg yolks. Output in 1959–60 amounted to 1,268,000 lb. and 815,000 lb. respectively, compared with 631,000 lb. and 337,000 lb. respectively in the previous year. These figures exclude small quantities produced in Tasmania for which details are not available.

3. **Production and Consumption of Eggs.**—Because of the operations of producers in areas outside the control of the Egg Boards and the extent of “back-yard” poultry-keeping, for which no statistics are collected, figures relating to total egg production must be accepted with some reserve. The production shown in the following table, together

with details of exports and consumption, is based upon the records of Egg Boards of production from areas under their control, plus estimates of production from uncontrolled areas and from "back-yard" poultry-keepers.

**ESTIMATED PRODUCTION AND DISPOSAL OF EGGS IN SHELL(a):
AUSTRALIA.**

Period.	Changes in Stock.	Estimated Total Production.	Exports.	For Drying and Pulping.(b)	Apparent Consumption in Australia.	
					Total.	Per Head per Annum.
Average for three years ended—	'000 tons.	'000 tons.	'000 tons.	'000 tons.	'000 tons.	lb.
1938-39 .. ..	..	89.5	7.6	3.2	78.7	25.7
1948-49 .. ..	..	119.9	10.4	22.9	86.6	25.4
1958-59 .. ..	..	111.2	5.6	13.5	92.1	21.2
Year—						
1955-56 .. ..	..	113.2	9.9	15.4	87.9	21.1
1956-57	+0.9	115.8	6.3	16.9	91.7	21.5
1957-58	-0.7	111.8	7.3	13.9	91.3	21.0
1958-59	-0.1	106.1	3.3	9.6	93.3	21.0
1959-60	+0.4	116.4	2.0	15.9	98.1	21.6

(a) The average weight of an egg in Australia is taken as 1.75 oz. (b) Includes wastage.

Details of the consumption of shell eggs, liquid whole egg and total shell egg equivalent (expressed in lb. and in number of eggs) per head of population per annum are shown in the following table:—

**SUPPLIES OF EGGS AND EGG PRODUCTS(a) AVAILABLE FOR CONSUMPTION:
AUSTRALIA.**

(Per Head per Annum.)

Period.	Shell Eggs.	Liquid Whole Egg and Egg Powder. (a)	Total.	
			Weight.	Number.(b)
Average for three years ended—	lb.	lb.	lb.	
1938-39	25.7	0.9	26.6	243
1948-49	25.4	2.5	27.9	255
1958-59	21.2	1.3	22.5	206
Year—				
1955-56	21.1	1.3	22.4	205
1956-57	21.5	1.5	23.0	210
1957-58	21.0	1.2	22.2	203
1958-59	21.0	1.3	22.3	204
1959-60	21.6	1.6	23.2	212

(a) In terms of weight of shell eggs.
1.75 oz.

(b) The average weight of an egg in Australia is taken as

4. **Marketing of Eggs.**—(i) *Markets.* Details of the annual contracts entered into between the United Kingdom and Australian Governments up to 1952-53 and of the results of trading under free market conditions in the four years following appear in earlier issues of the Official Year Book.

Because of the United Kingdom policy of expanding egg production, the United Kingdom's importance as a market for Australian shell eggs has been declining. In both 1958-59 and 1959-60, the United Kingdom took 28 per cent. of Australia's exports of shell eggs, compared with 86 per cent. in 1952-53.

The United Kingdom remains virtually the only export market for egg pulp. Australian exports of pulp thereto were approximately 3,700 tons in 1958-59 and 3,800 tons in 1959-60.

The main outlets for Australian eggs in 1959-60, other than the United Kingdom, were Saudi Arabia (588,000 dozen) and Singapore (458,000 dozen).

(ii) *Egg Export Control Act 1947.* Following the termination of Commonwealth control over the production and marketing of eggs on 31st December, 1947, functions relating to the local marketing of eggs reverted to State Egg Boards, which became responsible for stabilizing prices and marketing of eggs produced in the respective States. In order to assist in marketing Australia's surplus production of eggs under the Long-term Purchase Agreement with the United Kingdom, the Commonwealth established the Australian Egg Board under the Egg Export Control Act 1947. The Board, which commenced operating on 1st January, 1948, was empowered to buy and sell, on behalf of the Commonwealth Government, eggs and egg products intended for export which comply with the provisions of the Export (Dairy Produce) Regulations. In addition, the Board was authorized to deal with all matters relating to the export of eggs and egg products from Australia, to make such experiments as are likely to lead to the improvement of the quality of Australian eggs and to promote their sale overseas. The Board consisted of ten members, including six representatives of egg producers and one representative of the Commonwealth Government.

Owing to the discontinuance of inter-governmental trading in eggs and egg products, the Egg Export Control Act was amended in April, 1954, to provide for the reconstruction of the Australian Egg Board and the implementation of an egg export marketing scheme. The new Board, established on 17th June, 1954, comprises nine members including a representative of the Commonwealth Government and representatives from each State Egg Marketing Board (except Tasmania). The Board is empowered to act as a trading authority selling eggs and egg pulp as agent for State Egg Boards. However, any State Board desiring to export on its own account may do so, subject to general terms and conditions as laid down by the Australian Egg Board.

5. *Oversea Trade in Poultry Products.—(i) Exports.* The Australian overseas export of poultry products has been confined in the past chiefly to eggs in shell and egg contents, which are consigned mainly to the United Kingdom. In 1949-50, exports of eggs in shell reached the record level of 23 million dozen. Shipments were at a lower level in subsequent years, being 5.0 million dozen in 1958-59 and 2.8 million dozen in 1959-60.

Prior to the 1939-45 War, exports of egg contents were small and in 1939-40 there was an excess of imports. During the war years and for some years thereafter, exports expanded greatly, but there has been a decline in subsequent years and in 1959-60 16.2 million lb. only were exported compared with 37.9 million lb. in 1953-54.

After 1945, there was a considerable increase in the exports of frozen poultry, which in 1955-56 amounted to 1,486,000 lb. They have, however, since been much lower.

Total quantities and values of exports of Australian origin of poultry products (live poultry, frozen poultry, eggs in shell, egg pulp and powder) for the years 1957-58 to 1959-60, are shown on page 999.

(ii) *Imports.* Imports of poultry products have hitherto been negligible. However, during 1960-61, approximately 3 million lb. of canned chicken, valued at £0.3 million, were imported from the United States of America. A consequence of this development was that Australian producers have sought tariff protection from the imported product.

§ 6. Bee-farming.

1. *Production of Honey and Bees-wax.*—Although practised as a separate industry, bee-farming is also carried on in conjunction with other branches of farming. In recent years, there has been considerable growth in the number of itinerant apiarists operating on a large scale with mobile equipment. Some of these apiarists move as far afield as from Victoria to Queensland in an endeavour to provide a continuous supply of nectar from suitable flora for their bees. The returns of honey from productive hives during 1959-60 showed an average of 126 lb. per hive and the average quantity of wax was 1.7 lb. per productive hive.

The number of hives and the production of honey and bees-wax during the year 1959-60 are shown in the following table.

BEEHIVES, HONEY AND BEES-WAX, 1959-60.

State or Territory.	Beehives.			Honey Produced.		Bees-wax Produced.	
	Pro- ductive.	Unpro- ductive.	Total.	Quantity.	Gross Value.	Quantity.	Gross Value.
	'000.	'000.	'000.	'000 lb.	£'000.	'000 lb.	£'000.
New South Wales ..	143	51	194	18,682	1,129	257	70
Victoria ..	86	19	105	9,661	600	113	29
Queensland ..	30	11	41	4,119	189	59	15
South Australia ..	59	11	70	7,221	286	106	26
Western Australia ..	38	9	47	5,549	162	67	13
Tasmania ..	5	2	7	296	22	4	2
Aust. Cap. Territory ..	1	(a)	1	34	2	1	(b)
Australia ..	362	103	465	45,562	2,390	607	155

(a) Less than 500.

(b) Less than £500.

The production of honey and bees-wax fluctuates considerably and is determined mainly by the flow of nectar from flora, particularly the eucalypts, which varies greatly from year to year. Compared with pre-war, there has been a pronounced upward trend in the output of honey, and a record production of 53,200,000 lb. was obtained in 1948-49. The production in 1959-60, 45,600,000 lb., was the highest since that year.

The table below shows the production of honey and bees-wax for periods from 1938-39 to 1959-60.

HONEY AND BEES-WAX PRODUCTION.

('000 lb.)

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus- tralia.(a)
HONEY.							
Average for three years ended—							
1938-39 ..	3,005	3,107	700	2,874	1,299	200	11,188
1948-49 ..	14,934	8,232	2,185	8,292	2,831	206	36,887
1958-59 ..	12,853	7,239	2,071	5,924	6,548	398	35,077
Year—							
1955-56 ..	15,207	7,010	2,329	5,715	4,482	302	34,464
1956-57 ..	14,946	8,210	3,075	8,169	5,650	372	40,458
1957-58 ..	13,029	5,884	1,373	4,151	7,313	481	32,286
1958-59 ..	10,583	7,624	1,766	5,453	6,680	342	32,487
1959-60 ..	18,682	9,661	4,119	7,221	5,549	296	45,562
BEES-WAX.							
Average for three years ended—							
1938-39 ..	49	39	11	38	23	2	162
1948-49 ..	174	86	36	110	34	3	443
1958-59 ..	163	81	31	94	81	5	455
Year—							
1955-56 ..	184	78	34	70	57	4	427
1956-57 ..	188	90	42	116	70	5	511
1957-58 ..	165	67	25	86	87	5	436
1958-59 ..	137	86	25	80	84	4	417
1959-60 ..	257	113	59	106	67	4	607

(a) Includes Australian Capital Territory and Northern Territory.

2. Oversea Trade in Bee Products.—Prior to the 1939-45 War, the production of honey exceeded Australian requirements and a small quantity was available for export. In 1948-49, the record quantity of 32.1 million lb., was exported. Exports amounted to 11.2 million lb. in 1958-59 and 13.7 million lb. in 1959-60, about two thirds going to the United Kingdom and most of the remainder to the Federal Republic of Germany.

The quantity of bees-wax imported generally exceeded that exported up to 1945-46, but since 1946-47, with the exception of 1951-52, local production has been higher and exports have exceeded imports by substantial margins. In 1959-60, exports exceeded imports by an amount of about 200,000 lb.

Total quantities and values of exports of honey and bees-wax for the years 1957-58 to 1959-60 are shown in § 7 below.

§ 7. Exports of Australian Farmyard, Dairy and Bee Products.

The quantities and values of Australian farmyard, dairy and bee products exported during the years 1957-58 to 1959-60 are shown below.

EXPORTS OF FARMYARD, DAIRY AND BEE PRODUCTS : AUSTRALIA.

Particulars.	Unit of Quantity.	Quantity.			Value (£A'000 f.o.b. Port of Shipment).		
		1957-58.	1958-59.	1959-60.	1957-58.	1958-59.	1959-60.
Bees-wax	lb.	170,167	121,441	208,508	43	30	48
Butter	'000 lb.	113,779	173,189	172,410	15,639	24,956	28,646
Cheese	"	20,674	32,280	42,395	1,855	4,467	4,989
Eggs in shell	'000 doz.	11,828	5,031	2,760	1,851	899	506
Eggs not in shell—							
In liquid form	'000 lb.	17,897	8,518	16,153	1,967	832	1,999
Dry	"	43	5	6	19	8	6
Honey	"	19,685	11,194	13,706	936	508	545
Lard	"	397	146	185	23	13	19
Meats—							
Bacon and Ham (including canned)	"	2,895	2,534	694	686	565	184
Frozen Poultry	"	606	460	252	133	110	61
Frozen Pork	"	2,149	1,870	790	318	274	150
Milk—							
Condensed, Preserved, etc.—							
Sweetened Full Cream	"	67,995	50,671	50,542	5,101	3,542	3,527
Unsweetened	"	1,909	4,507	6,014	120	265	356
Dried or Powdered—							
Full Cream	"	13,898	17,149	18,184	2,128	2,521	2,641
Skim	"	29,795	52,082	56,893	1,182	1,905	2,445
Malted	"	5,343	5,998	6,078	750	898	947
Infants' and Invalids' Foods—							
Essentially of Milk	"	8,207	7,313	7,080	1,228	1,103	1,026
Other	"	6,388	5,675	8,821	1,238	1,099	1,632
Pigs, live	Number	1,030	938	591	27	21	20
Poultry, live (a)	"	143,869	198,616	443,376	20	31	64

(a) Including day-old chicks.

§ 8. Imports of Dairy and Farmyard Products into the United Kingdom.

(Source: Board of Trade Accounts relating to Trade and Navigation of the United Kingdom.)

NOTE.—Values of imports in this section are expressed in £ sterling c.i.f. at the landed point.

1. Summary, Principal Products.—The following table shows the quantities and values of the principal dairy products imported into the United Kingdom during the years 1958, 1959 and 1960.

DAIRY PRODUCTS: IMPORTS INTO UNITED KINGDOM.

Product.	Unit of Quantity.	1958.		1959.		1960.	
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
			£'000.		£'000.		£'000.
Butter	'000 cwt.	8,454	97,397	8,014	134,312	8,167	122,985
Cheese	"	2,372	23,575	2,726	38,387	2,653	32,224
Milk, powdered and preserved	"		5,230		9,631		7,121
Bacon and ham	'000 cwt.	7,272	96,860	7,584	100,330	8,838	117,296
Pork(a)	"	370	3,401	280	3,206	436	4,903
Eggs in shell	'000 doz.	14,854	2,192	12,769	1,594	35,135	4,653
Eggs not in shell, liquid or frozen	'000 cwt.	473	5,445	251	3,536	306	3,987

(a) Excludes pork in airtight containers.

2. **Butter.**—Until 1950, Australia had regularly supplied between 20 and 30 per cent. of the butter imported into the United Kingdom. After 1950, when butter rationing was abolished in Australia, the quantity shipped was considerably lower, but in 1956 it again amounted to 1,515,000 cwt., or 21.4 per cent. of the total United Kingdom imports. Shipments fell away again in subsequent years. In 1960, Australia supplied 1,168,000 cwt. or 14.3 per cent. of the United Kingdom imports, New Zealand supplied 36.0 per cent. and Denmark 24.0 per cent.

In the following table, particulars of the quantity and value of butter imported into the United Kingdom are shown for the years 1958, 1959 and 1960 according to country of origin.

BUTTER: IMPORTS INTO UNITED KINGDOM.

Country from which Imported.	1958.		1959.		1960.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	'000 cwt.	£'000.	'000 cwt.	£'000.	'000 cwt.	£'000.
New Zealand	3,400	38,877	3,250	53,475	2,941	45,660
Australia	986	11,634	1,282	20,206	1,168	18,271
Other Commonwealth Countries and Republic of Ireland ..	373	4,474	160	3,611	175	2,545
Denmark	1,907	23,244	1,891	33,185	1,964	29,726
Netherlands	593	6,609	270	5,109	347	5,078
Other Foreign Countries ..	1,195	12,559	1,161	18,726	1,572	21,705
Total	8,454	97,397	8,014	134,312	8,167	122,985

3. **Cheese.**—The value of cheese imported into the United Kingdom in 1960 was £32,224,000. Of this, £18,440,000 was imported from New Zealand, £3,463,000 from Australia, £2,595,000 from Denmark, £2,397,000 from Canada and £1,853,000 from the Netherlands.

4. **Bacon.**—Of a total import in 1960 of bacon (excluding bacon in airtight containers), valued at £101,702,000, the value of that supplied by Denmark was £72,688,000, Poland, £10,824,000, the Netherlands, £7,865,000 and the Republic of Ireland, £6,131,000.

5. **Pork.**—The value of the United Kingdom imports of pork (excluding pork in airtight containers) was £4,903,000 in 1960. Imports were mainly from the Argentine Republic (£829,000) and Denmark (£576,000).

6. **Eggs.**—In 1960, the value of eggs imported into the United Kingdom was £8,640,000, comprising eggs in shell, £4,653,000, and liquid or frozen eggs, £3,987,000. Eggs in shell were supplied principally by Denmark and the Union of South Africa.

7. **Milk Products.**—In 1960, the value of preserved milk imported into the United Kingdom was £7,121,000. Of this total, imports from New Zealand amounted to £2,864,000, the Netherlands, £1,320,000 and Australia, £1,110,000.

CHAPTER XXV.

FORESTRY.

NOTE.—For further details on subjects dealt with in this chapter *see* the annual bulletins *Primary Industries, Part II.—Non-Rural Industries and Value of Production* and *Secondary Industries* (sawmills, etc., operations).

§ 1. Introduction.

1. **Source of Statistics.**—Statistics relating to forestry are, in general, provided by the various authorities concerned with forestry administration. In each State, suitable areas of Crown Land have been reserved for forestry purposes, either as State forests or other reserves, and the administration of these is the responsibility of the respective State Government forestry authorities. In addition, in some States, areas of forests on Crown Lands dedicated as National Parks and the like are administered by Government Departments other than the forestry authorities. There are timber resources on private land in each State but details concerning these areas and production therefrom are not complete for all States. Forestry activities in the Northern Territory and the Australian Capital Territory are administered by the Commonwealth Government.

Particulars of forested areas contained in this chapter have been collected by the Statisticians of the several States, mainly from information provided by the State Forestry authorities. The Forestry and Timber Bureau of the Commonwealth has provided figures for the Northern Territory and the Australian Capital Territory and, in addition, has made available certain other data.

Statistics of timber and by-products have been compiled from the annual factory collections undertaken by the Statisticians in the several States. Figures of production of gums, resins and tanning barks have been provided by the State Forestry authorities.

Data of imports and exports of forest products and timber and timber products have been compiled in the Commonwealth Bureau of Census and Statistics as part of the overall statistics of overseas trade.

The figures shown relate, in general, to financial years ending 30th June.

Forested areas shown in this chapter relate to areas administered by the State or Commonwealth authorities, or to those reserved by government legislation. They are not based on any inventory of forest resources using standard and uniform definitions throughout the Commonwealth. It should be noted, therefore, that the figures are not comparable between States owing to the lack of uniformity in the interpretation of what constitutes a forest.

2. **Objects of Forestry.**—The main object of forestry authorities is to manage the forests of the country in a manner that will provide the maximum benefits, both direct and indirect. Direct benefits include the provision of essential commercial commodities such as structural timber, pulpwood, plywood, veneers, firewood, bark products, tars, oils and resins. Indirect benefits include protection of soil and stock from wind and exposure, regulation of stream flow, provision of recreational facilities and aesthetic effects. Forestry also aims at improving existing forests and woodlands by properly controlled exploitation, by protection from such destructive agencies as fire and insect attack, and by inducing regeneration where it is desirable. The provision of a partial tree cover on denuded lands where such cover is necessary for protective purposes, and a complete cover when the land is better under forest than under any other land use, is a further aim of forestry.

§ 2. Forestry in Australia.

1. **General Account of Forests and Timbers.**—The area of land in Australia suitable for the production of commercial timber as the primary crop is very small in comparison with the size of the continent. It is concentrated mainly around the wetter coastal belts in the eastern highlands and includes the bulk of the land suitable for intensive development by agricultural or pastoral undertakings or other forms of closer settlement.

The trees which make up the forests of Australia are mainly evergreen hardwoods. The characteristic genus is *Eucalyptus*. There are over 600 different species of eucalypts and with few exceptions the natural occurrence of all of them is restricted to Australia. The genus includes species such as the mountain ash (*Eucalyptus regnans*) of Victoria and Tasmania, the world's tallest growing hardwood, and the karri (*E. diversicolor*) of Western Australia, another forest giant. At the other end of the scale, there are many eucalypts which do not grow to tall trees, including the species collectively known as the "mallees". The mallees develop a number of small stems from an underground structure called the "mallee root". Less than 100 species of eucalypts are used for sawmilling and not more than 40 are exploited extensively. The main commercial eucalypts are listed in Official Year Book No. 39 and earlier issues.

A large number of other genera represented in the Australian forest flora also produce commercial hardwoods. Among the outstanding furniture, cabinet and veneer timbers are red cedar (*Cedrela toona* var. *australis*), Queensland maple (*Flindersia brayleyana*), Southern and Northern silky oak (*Grevillea robusta* and *Cardwellia sublimis*, respectively), Queensland walnut (*Endiandra palmerstoni*), blackwood (*Acacia melanoxylon*), rose mahogany (*Dysoxylum fraserianum*), etc. Turpentine (*Syncarpia laurifolia*) ranks with the world's best as a harbour piling timber. Coachwood (*Ceratopetalum apetalum*) came into prominence for rifle furniture and for aircraft plywood during the 1939–45 War.

The most important indigenous softwood resources of Australia were in the forests of hoop pine (*Araucaria cunninghamii*) of Queensland and New South Wales. The greater part of the original hoop pine forest has been exploited, but considerable areas have been replanted with this species in Queensland and, to a lesser extent, in New South Wales. There are considerable areas of the useful termite-resisting cypress pine (*Callitris* spp.) in the inland areas of Queensland and New South Wales, which have not been cleared for grazing. These cypress pine areas are gradually being brought under systematic management.

Other native softwoods which have played a useful but minor part in the Australian timber industry include bunya pine (*Araucaria bidwillii*) and kauri (*Agathis* spp.) of Queensland, and huon pine (*Dacrydium franklinii*), celerytop pine (*Phyllocladus rhomboidalis*) and King William pine (*Arthrotaxis selaginoides*) of Tasmania.

The lower quality forests of inland Australia yield such commercial commodities as sandalwood, tan-barks and essential oils. They also have an important function in providing fuel and rough timbers for the development of agricultural and pastoral holdings.

2. **Extent of Forests.**—According to data assembled for the Seventh British Commonwealth Forestry Conference held in Australia and New Zealand in 1957, the total area of forest in Australia is estimated at 186,791 square miles, or about 6.3 per cent. of the total land area of the continent. The estimated forest area is distributed amongst the States as follows (the proportion of forest land to the total area of each State is shown in parentheses):—New South Wales and the Australian Capital Territory, 37,942 square miles (12 per cent.); Victoria, 26,222 (30 per cent.); Queensland, 28,000 (4 per cent.); South Australia, 36,000 (including 25,000 square miles of mallee suitable for firewood only) (10 per cent.); Western Australia, 41,826 (4 per cent.); Tasmania, 12,301 (47 per cent.) and the Northern Territory, 4,500 (1 per cent.). These areas are considerably in excess of those which are both suitable for reservation and likely to be maintained for timber production, for they include considerable areas of low-grade forest suitable only for the production of poles, fencing timbers and firewood. It is doubtful if the residual prime native forest area exceeds 30,000 square miles. Further particulars are set out in the table following.

CLASSIFICATION OF FOREST AREA: AUSTRALIA.

(Based on the 1955 Classification of Forests.)

Class of Forest.	Area.				Proportion of Total Forest Area.
	State Forest.	Communal Forest.	Private Forest.	Total.	
Exploitable—	Sq. Miles.	Sq. Miles.	Sq. Miles.	Sq. Miles.	Per Cent.
Softwood	10,512	5	2,808	13,325	7.1
Mixed Wood	754	..	754	754	0.4
Hardwood	41,691	75	13,129	54,895	29.4
<i>Total</i>	<i>52,957</i>	<i>80</i>	<i>15,937</i>	<i>68,974</i>	<i>36.9</i>
Potentially Exploitable—					
Softwood	58	..	100	158	0.1
Mixed Wood	100	..	..	100	0.1
Hardwood	13,002	..	12,200	25,202	13.5
<i>Total</i>	<i>13,160</i>	<i>..</i>	<i>12,300</i>	<i>25,460</i>	<i>13.7</i>
Other Lands Classed as Forest	81,023	450	10,884	92,357	49.4
Grand Total ..	147,140	530	39,121	186,791	100.0

State forests accounted for 78.8 per cent. of the total forest area, private forests for 20.9 per cent. and communal forests for 0.3 per cent.

The bulk of the softwood area of approximately 13,325 square miles is in Queensland and New South Wales and consists principally of cypress pine (*Callitris spp.*) in low rainfall areas. The total area has been increased in comparison with previous estimates by the inclusion of a large area of crown land carrying scattered cypress pine. The volume per acre of this species is comparatively low.

Further particulars of forested areas are set out in § 3, page 1005.

3. Persons Engaged.—In the following table, which shows particulars collected in the Population Censuses of Australia of 30th June, 1947 and 1954, the numbers of persons whose "industry" was stated to be "forestry (excluding sawmilling)" are shown, together with the numbers engaged in all primary industries and the total work force.

PERSONS ENGAGED, AUSTRALIA.

Particulars.					At 30th June.	
					1947.	1954.
Persons engaged in—						
Forestry (excluding sawmilling)	No.				24,793	15,468
All Primary Industries	No.				563,607	560,100
Total Work Force	No.				3,196,431	3,702,022
Persons employed in Forestry (excluding sawmilling) as a proportion of—						
All Primary Industries	%				4.4	2.8
Total Work Force	%				0.8	0.4

Particulars of the number of persons employed by Forestry Departments and in Saw-mills are included in § 5, para. 2, page 1010.

4. **Value of Production.**—(i) *General.* Statistics of both the gross value (at principal market) and local value (at place of production) of the forestry industry are available. Particulars of the value of materials used in the process of production are not available for all States; for this reason values cannot be stated on a net basis, as has been done with most other industries.

In 1959–60, the local value of forestry production amounted to £53,859,000. The most important States were New South Wales, Victoria and Queensland with £15,169,000, £15,476,000 and £8,469,000 respectively.

(ii) *Gross and Local Values, 1959–60.* The following table shows gross and local values of forestry production for each State in 1959–60. A more detailed reference to the value of production of forestry and other industries in Australia, as well as a brief explanation of the terms used, will be found in Chapter XXX.—Miscellaneous.

GROSS AND LOCAL VALUE OF FORESTRY PRODUCTION, 1959–60.
(£'000.)

State or Territory.	Gross Value (Gross Production Valued at Principal Markets).	Marketing Costs.	Local Value (Gross Production Valued at Place of Production).
New South Wales	15,390	221	15,169
Victoria	16,969	1,493	15,476
Queensland	9,397	928	8,469
South Australia	4,033	104	3,929
Western Australia	5,460	375	5,085
Tasmania	6,276	720	5,556
Northern Territory	25	(a)	25
Australian Capital Territory	150	(a)	150
Australia	57,700	3,841	53,859

(a) Not available.

(iii) *Local Values, 1955–56 to 1959–60.* In the following table, the local value of forestry production and the local value per head of population are shown by States for the years 1955–56 to 1959–60.

LOCAL VALUE OF FORESTRY PRODUCTION.

Year.	N.S.W.	Vic.	Q'ld.	S.A.	W.A.	Tas.	Aust.(a)
LOCAL VALUE (£'000).							
1955–56	15,343	11,823	8,660	4,596	4,877	4,591	50,059
1956–57	16,758	12,297	9,487	4,051	4,779	4,523	52,099
1957–58	15,341	13,088	9,414	3,587	5,112	4,547	51,306
1958–59	15,574	14,063	8,356	4,103	5,067	4,887	52,273
1959–60	15,169	15,476	8,469	3,929	5,085	5,556	53,859

LOCAL VALUE PER HEAD OF POPULATION (£).

1955–56	4.3	4.6	6.4	5.5	7.3	14.4	5.4
1956–57	4.7	4.7	6.9	4.7	7.0	13.9	5.5
1957–58	4.2	4.8	6.7	4.0	7.3	13.6	5.3
1958–59	4.2	5.0	5.9	4.5	7.1	14.3	5.3
1959–60	4.0	5.4	5.8	4.2	7.0	16.0	5.3

(a) Includes Northern Territory and Australian Capital Territory.

§ 3. Forested Areas.

1. **Forest Reservations.**—The first estimate of the forest area which should be reserved solely for purposes of timber production was made at an interstate forestry conference held at Hobart in 1920. This conference decided that an area of 24½ million acres of indigenous forest should be permanently dedicated to timber production. According to statements furnished by State and Commonwealth authorities, reservations of forest areas in Australia as at 30th June, 1960, totalled 33,791,000 acres, of which 23,088,000 acres were Dedicated State Forests and 10,703,000 acres were Timber and Other Reserves. The distribution of those areas is shown by States in the following table:—

AREA OF FOREST RESERVATIONS, 30TH JUNE, 1960.

(Acres.)

State or Territory.	State Forests.	Timber Reserves (Forest Acts).	Other Reserves.	Total.
New South Wales	6,420,005	1,441,542	..	7,861,547
Victoria	4,860,056	709,794	(a) 169,302	5,739,152
Queensland	5,118,483	3,055,740	(b) 843,054	9,017,277
South Australia	268,667	981	(c) 491,874	761,522
Western Australia	4,329,514	1,768,303	(a) 780,678	6,878,495
Tasmania	22,091,544	137,028	(e) 814,709	3,043,281
Northern Territory .. ..	..	..	(f) 358,900	358,900
Australian Capital Territory .. ..	..	..	(g) 131,000	131,000
Australia	23,088,269	7,113,388	3,589,517	33,791,174

(a) Timber reserves under the Land Act. (b) National Parks. (c) Includes some fauna and flora areas for which figures were not previously available. (d) Includes 464,984 acres of State Forests under pulpwood concession. (e) Consists of 612,000 acres of pulpwood concessions over Crown land and 202,709 acres of exclusive forest permits not elsewhere included. (f) Comprises mainly a fauna and flora reserve on Coburg Peninsula. (g) Forest land not specifically reserved.

If the permanently reserved areas were all of good quality, accessible, and fully productive, and if they supplied the class of timber required, they could be regarded as adequate for a larger population than exists in Australia at the present time. Actually, a considerable proportion is in inaccessible mountainous country and many of the forests contain a mixture of species, only some of which are at present of commercial value. Much of the area consists of inferior forest and a large proportion of the whole has been seriously degraded by recurrent fires. Moreover, the indigenous forest does not contain adequate supplies of softwoods and Australia's requirements have had to be met largely by imports.

It is freely acknowledged by Australian forest authorities that information on forest resources is imperfect. It is not possible to give a reliable estimate of the forest area needed to meet future demands because of the unknown variables involved, in particular, the yield capacity per acre, future consumption of different classes of timber, and the future population.

It appears, however, that all available good forested country and an adequate area suitable for plantations of coniferous timber must be reserved, protected and systematically managed if Australia is to approach the goal of self-sufficiency in timber supplies in the future.

2. **Plantations.**—Reference has been made to the inadequacy of indigenous softwood supplies, but as a result of the planned policy of the Forest Services and of several private commercial organizations, the area of softwood plantations, mainly of exotic species, is steadily increasing. It was natural that this aspect of forestry should receive earliest attention in South Australia, as this is the State most poorly endowed with natural forest. South Australia now has a larger area of planted softwoods than any other State in Australia, and for some years has been exploiting considerable quantities of timber from these plantations. The total production is now over 200,000,000 super. feet per annum and is expected to be increased substantially during the next decade. Production is also increasing in the other States and the thinnings from their plantations are already supplying a significant volume of timber.

Data relating to areas of plantations for past years have been shown as at 30th June. As new areas are being planted in most States at this time of the year, the following table has been compiled by the Forestry and Timber Bureau as at 30th September, 1960.

SOFTWOOD PLANTATIONS, 30TH SEPTEMBER, 1960.
(Acres.)

State or Territory.	Government.			Private: (mainly <i>P. radiata</i>).	Total.
	<i>Pinus radiata</i> .	Other species.	Total.		
New South Wales	64,372	18,646	83,018	12,000	95,018
Victoria	38,742	15,056	53,798	55,500	109,298
Queensland	1,852	88,566	90,418	5,169	95,587
South Australia	105,400	9,700	115,100	(a) 36,200	151,300
Western Australia	10,692	21,330	32,022	584	32,606
Tasmania	14,837	397	15,234	5,446	20,680
Australian Capital Territory ..	21,157	2,096	23,253	100	23,353
Australia	257,052	155,791	412,843	114,999	527,842

(a) Excludes plantings during 1960.

A special article giving a detailed account of the history and development of softwood plantations and of the characteristics of individual species has been prepared by the Forestry and Timber Bureau, and is included in Official Year Book No. 45, pages 975 *et seq.*

Hardwood plantations (mainly *Eucalyptus spp.*) comprise a much smaller area and the total acreage at 30th June, 1960, was 30,924 acres, nearly two-thirds of which was mallet (*Eucalyptus astringens*). Plantations of this species have been established in Western Australia for tan-bark production.

§ 4. Forestry Production.

1. Timber.—Particulars of logs treated and the production of sawn, peeled and sliced timber by sawmills and other woodworking establishments are shown in the following table, by States, for the year 1959–60. These figures have been compiled from the annual factory collections in each State which cover virtually all sawmills. The only omissions are some small portable mills operated by itinerants, e.g., sleeper cutters.

OUTPUT OF AUSTRALIAN-GROWN TIMBER : ALL MILLS, 1959-60.
(’000 super. feet.)

Particulars.	N.S.W.	Vic.	Q’land.	S.A.	W.A.	Tas.	Aust.(a)
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LOGS TREATED.

Hardwood ..	650,900	687,483	415,750	6,476	601,676	428,130	2,790,415
Softwood ..	154,139	68,272	164,567	290,836	15,131	12,716	705,661
Total ..	805,039	755,755	580,317	297,312	616,807	440,846	3,496,076

SAWN, PEELED OR SLICED TIMBER PRODUCED FROM LOGS ABOVE.

Hardwood ..	326,810	323,321	196,872	3,159	193,538	164,895	1,208,595
Softwood ..	71,917	27,137	77,829	125,283	5,521	4,764	312,451
Total ..	398,727	350,458	274,701	128,442	199,059	169,659	1,521,046

(a) Excludes the Australian Capital Territory and the Northern Territory, details for which are not available for publication.

The following table shows logs used and sawn, peeled and sliced timber produced, in Australia for the years 1955-56 to 1959-60.

OUTPUT OF AUSTRALIAN-GROWN TIMBER : ALL MILLS, AUSTRALIA.(a)
(^{'000} super. feet.)

Particulars.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
LOGS TREATED.					
Hardwood	2,723,376	2,683,205	2,625,384	2,727,754	2,790,415
Softwood	589,670	569,552	581,065	677,501	705,661
Total	3,313,046	3,252,757	3,206,449	3,405,255	3,496,076

SAWN, PEELED OR SLICED TIMBER PRODUCED FROM LOGS ABOVE.

Hardwood	1,180,936	1,151,428	1,127,150	1,158,799	1,208,595
Softwood	268,786	267,431	264,027	301,175	312,451
Total	1,449,722	1,418,859	1,391,177	1,459,974	1,521,046

(a) Excludes the Australian Capital Territory and the Northern Territory, details for which are not available for publication.

The next table shows the sawn, peeled and sliced output of Australian-grown timber from sawmills and other wood-working establishments in each State for the years 1955-56 to 1959-60.

OUTPUT(a) OF AUSTRALIAN-GROWN TIMBER : ALL MILLS.
(^{'000} super. feet.)

State.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
New South Wales	362,709	365,548	359,737	373,515	398,727
Victoria	351,271	342,288	346,473	344,018	350,458
Queensland	261,730	275,936	268,200	262,033	274,701
South Australia	100,983	94,869	84,541	122,456	128,442
Western Australia	222,397	204,474	201,664	211,943	199,059
Tasmania	150,632	135,744	130,562	146,009	169,659
Australia(b)	1,449,722	1,418,859	1,391,177	1,459,974	1,521,046

(a) Total production of sawn, peeled and sliced timber. (b) Excludes the Australian Capital Territory and Northern Territory, details for which are not available for publication.

In addition to the sawn timber shown in the preceding table, a large amount of hewn and round timber, e.g., sleepers, piles, poles, fencing timber, timber used in mining and fuel, is obtained from forest and other areas. Complete information in respect of the volume of this output is, however, not available.

2. Veneers, Plywood, etc.—Cutting of timber for the manufacture of veneers, plywood etc., has been carried out in most States for a number of years. In recent years, however, this has been considerably extended, since plywood manufacture has allowed the use of some species unsuitable for sawing. Special attention has been paid to ensure that logs suitable for peeling are diverted to ply factories. However, the supply of Australian-grown logs is inadequate and greater use is being made of imported logs.

The following table shows the production of plywood for each of the years 1955–56 to 1959–60.

PLYWOOD PRODUCED.
(’000 square feet— $\frac{3}{8}$ -in. basis.)

State.	1955–56.	1956–57.	1957–58.	1958–59.	1959–60.
New South Wales	39,256	41,921	45,647	56,378	62,701
Queensland	133,230	118,647	131,205	139,743	134,824
Other States	28,213	33,797	35,784	40,083	40,627
Australia	200,699	194,365	212,636	236,204	238,152

Of the total plywood produced in 1959–60, 180,869,000 square feet ($\frac{3}{8}$ -in. basis) were classed as “Commercial”, 36,514,000 as “Waterproof”, 2,660,000 as “Case” and 18,109,000 as “Sliced Fancy”.

During 1959–60, 602.4 million square feet ($\frac{1}{8}$ -in. basis) of veneers were produced by the rotary process for the manufacture of plywood, and 248.7 million square feet ($\frac{1}{8}$ -in. basis) were sold or added to stock, the bulk of which would eventually be used in the production of plywood. In addition, 41.3 million square feet of sliced veneers were produced.

3. Hardboard.—The production of hardboard from pulped wood for building purposes has increased considerably in Australia in recent years. There were five factories producing hardboard during 1959–60 (two in New South Wales, and one in each of Victoria, Queensland and Tasmania) and during the three years ended 30th June, 1960, the following quantities were produced:—1957–58, 24,504,000 square yards; 1958–59, 29,067,000 square yards; and 1959–60, 31,645,000 square yards.

Most of this hardboard enters into usage in the condition in which it leaves the producing factories. The remainder is further treated and surfaced to a variety of finishes and in 1959–60 this production accounted for 2,650,000 square yards valued at £948,000.

4. Wood Pulp and Paper.—(i) *Wood Pulp.* The manufacture of wood pulp from Australian-grown timber was established in Australia in 1939, after years of experimentation with eucalypt hardwoods. During 1959–60, four wood pulp mills were operating in three States and production was 144,872 tons of chemical pulp and 58,061 tons of mechanical pulp, a total of 202,933 tons. During the previous year, production was 144,757 tons of chemical pulp and 62,069 tons of mechanical pulp.

(a) *Victoria.* In Victoria, Australian Paper Manufacturers Limited produce wood pulp at Maryvale in Gippsland by a chemical process known as the kraft or sulphate process. The pulpwood used at this mill consists mainly of eucalypt timber below sawmilling quality, together with a quantity of plantation pine thinnings.

During the year 1959–60, 323,487 tons of eucalypt and pine pulpwood were supplied to Maryvale Mill. Plantations of both pines and eucalypts are being established in Gippsland at the rate of approximately 3,000 acres a year by A.P.M. Forests Proprietary Limited.

(b) *South Australia.* In South Australia, a paper board mill operates near Millicent, using raw material in the form of logs from the State Forests in the south east of South Australia. During 1959–60, a total quantity of 7,800,000 super. feet of pulpwood were supplied to this mill.

A new tissue paper mill near Millicent commenced operations in May, 1960. When in full production, it will use approximately 20 million super. feet of pulpwood annually.

(c) *Tasmania.* In Tasmania, two large mills are making pulp and paper from indigenous hardwoods. At Burnie, on the north-west coast, Associated Pulp and Paper Mills Ltd. use a chemical method, the soda process, to produce wood pulp for fine writing parchment and printing papers. A continuous digester at the Burnie mill makes it the only one in Australia to use a continuous pulping process. In addition, a semi-chemical pulp plant was brought into operation in 1959. In 1959–60, 71,000 tons of paper were

produced. The company holds freehold and State concession forest areas which are managed on a permanent yield basis with regeneration of the eucalypts in all suitable areas. Pine plantations are being established to provide softwoods for pulping.

Australian Newsprint Mills Ltd. at Boyer, 20 miles from Hobart, is the only producer of newsprint in Australia. Wood pulp is produced from hardwoods drawn from State timber concession areas. A mechanical process was used until 1957 when additional plant was installed for the manufacture of semi-chemical pulp. This plant uses the cold soda process which allows the utilization of additional species not suitable for ground wood pulp. The components of Boyer newsprint average 60 per cent. of ground-wood pulp, 22 per cent. of cold soda pulp (both made at Boyer from hardwoods) and 18 per cent. of imported Kraft pulp made from *Pinus radiata* in New Zealand. Newsprint production capacity is 85,000 long tons per annum. To secure more complete bush utilization, the company has established sawmills to convert understory species, principally myrtle and sassafras, to sawn timber. The forests are managed on a sustained yield basis. Forest utilization and management are designed to promote eucalypt regeneration. Experimental work into the problems involved is being carried out by the company and the Tasmanian Forestry Commission.

(ii) *Paper and Paper Board.* Paper and paper board are manufactured in all States but the industry is centred mainly in New South Wales, Victoria and Tasmania. During 1959-60, twenty paper mills were operating, nine in Victoria, four in New South Wales, three in Tasmania, two in Queensland and one each in South Australia and Western Australia. A wide variety of paper and paper board is produced in Australian mills. The quantity and value of paper produced in 1959-60, with comparable figures for 1958-59 in brackets, are as follows.—newsprint, 88,510 (83,071) tons valued at £6,682,005 (£6,304,189); blotting, 800 (832) tons, £144,685 (£145,224); duplicating, 5,804 (4,870) tons, £916,420 (£830,224); printing and writing, 67,825 (63,200) tons, £11,507,234 (£10,496,789); kraft wrapping, 66,451 (57,668) tons, £9,000,408 (£7,437,943); other wrapping 12,600 (12,362) tons, £2,275,045 (£2,092,727); felt and carpet felt, 4,145 (4,439) tons, £472,668 (£448,339); and other paper, 37,486 (35,043) tons, £4,329,530 (£3,709,471). In addition, 221,338 (200,339) tons of paper boards valued at £18,724,122 (£17,437,412) were produced.

5. *Other.*—(i) *Eucalyptus Oil.* Oil may be distilled from the foliage of all varieties of *Eucalyptus*, and several of them furnish a product widely known for its commercial and medicinal uses. Complete information regarding Australian production and consumption of eucalyptus oil is not available, but considerable quantities are manufactured, particularly in New South Wales and Victoria. The quantity and value of exports of eucalyptus oil distilled in Australia were 354,434 lb., £131,485 in 1957-58; 209,451 lb., £77,083 in 1958-59; and 256,888 lb., £94,760 in 1959-60.

(ii) *Gums and Resins.* Gums and resins are produced in most States of Australia, the main product being grass tree or yacca gum. This gum, which is used in the preparation of varnishes and lacquers, comes chiefly from South Australia, but small quantities are also produced in New South Wales and Western Australia. In 1959-60, the recorded production for Australia of gums and resins was 10,682 cwt. Exports of acaroid resin, grass-tree and yacca gum from Australia during the same period amounted to 9,068 cwt. valued at £18,058.

(iii) *Tanning Barks.* The forests of Australia are capable of yielding a wealth of tanning materials; many species of *Eucalyptus* and other genera contain varying proportions of tannin, chiefly in the bark, but also in the wood and twigs. Their scattered distribution, however, has resulted in the use of only the richest tan-bearing species in Australia. These are:—Golden wattle (*Acacia pycnantha*), green or black wattle (*Acacia decurrens* or *mollissima*), and mallet (*Eucalyptus astringens*). Mallet (*E. astringens*), of Western Australia, is not extensively used in Australian tanneries, but is exported. References to overseas trade in tanning substances are made in § 8, pages 1013 and 1014.

The production of extract from the bark of karri (*E. diversicolor*), of which very large quantities are available at karri sawmills, has passed the experimental stage, and private enterprise has started production on a commercial scale. The experimental work in kino impregnated marri (*E. calophylla*) bark is not yet complete. The total production of tanning bark in Australia approximated 25,000 tons per annum in the years prior to 1939, but since then production has declined and in 1959-60 was only 5,076 tons. However, this decrease is offset by the increased use of vegetable tanning extracts and synthetic tanning agents.

§ 5. Employment in Forestry.

1. **Persons Engaged in Forestry Activities.**—Particulars of the numbers of persons who, at the population censuses of 30th June, 1947 and 1954, stated that they were engaged in "forestry (excluding sawmills)" are shown in § 2, para. 3, page 1003.

2. **Employment by Forestry Departments.**—In the table below, details are shown of the number of persons employed by State Forestry Departments, and by the Forestry and Timber Bureau in the Australian Capital Territory and the Northern Territory, as at 30th June, 1960.

PERSONS EMPLOYED BY FORESTRY DEPARTMENTS, AS AT 30TH JUNE, 1960.

Occupational Group.	N.S.W.	Vic.	Q'ld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Professional Staff	197	197	83	72	58	30	3	6	646
Non-professional									
Field Staff ..	198	244	90	9	140	83	3	1	768
Clerical Staff ..	336	241	179	100	44	77	1	5	983
Extraction of Timber ..	1,255	136	115	73	35	..	..	..	5,681
Milling of Timber		21	..	758	27	..	..	..
Labour (Forest Workers, etc.)		621	1,614	247	499	225	9	46	
Total ..	1,986	1,460	2,081	1,259	803	415	16	58	8,078

3. **Employment in Milling Operations.**—Details of the average number of persons employed, including working proprietors, in sawmills during the year 1959-60 are shown in the next table. Further details regarding the operations of these mills are shown in Chapter VII.—Manufacturing Industry.

NUMBER OF SAWMILLS AND NUMBER OF PERSONS EMPLOYED, 1959-60.

Particulars..	N.S.W.	Vic.	Q'ld.	S.A.	W.A.	Tas.	Aust.(a)
Number of Sawmills	946	521	578	92	235	346	2,718
Average number of Persons Employed during Year—							
Males	9,117	6,809	6,329	2,251	3,777	2,759	31,042
Females	418	215	321	181	41	93	1,269
Total	9,535	7,024	6,650	2,432	3,818	2,852	32,311

(a) Excludes Northern Territory and Australian Capital Territory, details for which are not available for publication.

§ 6. Forest Administration and Research.

1. **Commonwealth Forestry and Timber Bureau.**—When the Commonwealth of Australia was established on 1st January, 1901, forestry was not included among the functions transferred from the States to the Commonwealth. In 1925 the Commonwealth Forestry Bureau was instituted and in 1930 received statutory powers. Its functions included advising the various Territorial Administrations on forestry matters, the management of forests placed under its control, the establishment of experimental forest stations, the training of professional foresters, etc. In 1946, the title of the Bureau was changed to "The Forestry and Timber Bureau" and its powers and functions were extended to embrace the collection of statistics and other information. In addition, its advisory functions were extended to the Governments of the Commonwealth and the States, or other interested bodies, on such matters as supply, production, imports and exports and distribution of timber in Australia.

The main activities of the Bureau under its statutory functions are:—

(a) **Forestry Education.** The Australian Forestry School, located in Canberra, trains professional foresters. Training at the school covers the third and fourth years of a four-year degree course in forestry. The first two years of the course are spent in a study of prescribed science subjects at one of the Australian universities. The third and fourth years

are spent at the Forestry School studying specialized forestry subjects. Students who satisfactorily complete the course graduate in Forestry at their home university and are awarded the Commonwealth Diploma in Forestry. The Commonwealth Diploma in Forestry or the Diploma in Forest Technology may also be awarded to suitable graduates from Australia or overseas who complete an appropriate course at the Australian Forestry School.

(b) *Silvicultural Research.* Research headquarters and a Central Experimental Station have been established in Canberra. Other forest experimental stations have been established at Mount Burr in the south-east of South Australia, in Tasmania and at Dwellingup in Western Australia, on a co-operative basis with the Forest Service of those States. An experimental station is also operating at Traralgon, Victoria in conjunction with A.P.M. Forests Pty. Ltd. It is proposed to establish similar co-operative experimental stations in other States and Territories.

The research work being carried out covers a wide field of studies of forest conditions; the genetic relationships and soil and climatic requirements of various species; forest nutrition; factors affecting the growth of trees; and the improvement of forest yields. Studies in fire protection, watershed management, forest entomology and pathology are also being actively pursued. Considerable expansion in research activities is planned as suitable trained staff becomes available.

(c) *Forest Management Research.* A national forest stocktaking is being carried out in co-operation with the Forest Services of the States, and special consideration is given to the use of aerial surveys to assist in forest assessment.

Research in the fields of forest management and mensuration is being carried out and further investigations into the economics of management are proposed.

A research station has been established at Darwin for the Northern Territory Administration.

(d) *Timber Supply Economics.* Advice is currently made available to government departments and private enterprise on timber supply matters. Research is undertaken on logging methods and machines and on matters associated with the marketing of timber products.

(e) *Management of Forests.* A Division of the Bureau manages the forests of the Australian Capital Territory, while the Darwin research station advises on the management of the forests of the Northern Territory. In addition, advice is made available to the Administrations of the Australian External Territories on the management of the forests in those Territories.

2. **Commonwealth Scientific and Industrial Research Organization, Division of Forest Products.**—Fundamental investigations connected with the properties and uses of timber and forest products generally are carried out by the Division of Forest Products of the Commonwealth Scientific and Industrial Research Organization. These investigations cover a very wide field, e.g., structure and chemistry of wood, tans, etc.; properties and uses of wood; methods of production of sawn timber, pulp, paper, etc.

3. **Forestry Activities of the States.**—The powers and functions of State Forest Authorities are laid down under Forestry Acts and Regulations. In each State, there is a Department or commission to control and manage State forests, etc. Its functions are summarized as follows: (a) the introduction of proper measures for the control and management of forest land; (b) the protection of forest land; (c) the conversion, marketing and economic utilization of forest products; (d) the securing of an adequate and permanent reservation of State forests; (e) the establishment and maintenance of coniferous forests to remedy the existing deficiency of softwoods in Australia. All State forest services are actively engaged on research programmes involving problems of a more applied nature as opposed to the basically fundamental biological research being carried out by the federal authorities.

Annual reports are issued by each State forest authority. The Forestry Commission of Victoria maintains a Forestry School at Creswick, where recruits are trained for employment in the Commission or in other avenues of forestry.

In addition to developing permanent forest reserves in each State, foresters are surveying all timber lands with a view to obtaining dedications of new State forests to add to the permanent forest estate or to release areas unsuitable for forestry for other uses. State forest authorities also usually control all timber on unoccupied Crown lands as well as over 10 million acres of timber reserves, national parks, etc.

4. **Private Forestry.**—A number of private forestry companies are now operating in Australia. They are mainly concerned with the supply of raw materials to specific wood processors (often parent companies). The majority have professional foresters on their staff, several being engaged on research.

An estimate of the area of softwood plantations established by private companies and individuals is included in the table in § 3, para. 2, page 1006.

§ 7. Fire Protection.

Fire control measures in Australia are the responsibility of the individual State Governments, and the provision of adequate fire protection is one of the main problems facing forest authorities. The forest services are responsible for fire protection measures over an area of some 40 million acres of dedicated and reserved forest areas throughout Australia, including some 10 million acres of Crown land in Victoria.

The responsibility for the protection of private property outside urban areas rests with volunteer bush fire brigade organizations which are co-ordinated in each State by a committee or board carrying out functions of an advisory or educational nature and fostering the growth and organization of the bush fire brigade movement. Throughout the main agricultural and forest areas of Australia there are over 4,500 registered volunteer bush fire brigades with a membership approaching 200,000. Although both forest and rural fire organizations are entirely separate entities, a high degree of co-operation and liaison is maintained.

In addition to the forest service and rural organizations, various private and semi-Government bodies in each State maintain fire protection organizations, which are generally concerned with the protection of private forestry operations and hydro-electric and water catchment areas.

Over the five-year period 1956–60, the annual cost of protecting from fire the 40 million acres of forest land for which State Forest Services are directly responsible is estimated at £1,600,000 or about 9d. an acre. The cost of rural fire control as a whole cannot be estimated with any degree of accuracy because by far the greatest contribution comes from the personal efforts of volunteer brigade members.

The Australian fire season is very variable, with an average of a particularly bad fire season every seven years or so. Such years as 1926, 1939, 1944, 1952 and 1957 account for a large proportion of the average annual burn. Over 80 per cent. of the area burnt carries little commercial timber, being mainly firewood and protection forest. The number of fires and the forest area burnt during the last four years is shown in the following table :—

NUMBER OF FIRES AND FOREST AREAS BURNT: AUSTRALIA.

(Source: Forestry and Timber Bureau.)

Year.	Number of Fires.		Forest Areas Burnt.	Burnt Areas as a Proportion of Total Forest Areas.
	No.		Acres.	Per cent.
1956–57	1,999		344,400	0.86
1957–58	2,908		2,078,340	5.11
1958–59	1,175		456,438	1.10
1959–60	1,407		1,297,301	3.25

Since the 1939–45 War, forest services have greatly expanded their fire detection facilities and big advances have been made in the use of power water-pumping equipment. Radio communication is now being used extensively by both forest services and rural organizations, and considerable progress has been made in the provision of legislative power for the rural bush fire movement, although the volunteer movement itself dates back to the turn of the century.

Intensive research work is being undertaken on fire problems and several governmental groups are working on such projects as the study of fire behaviour and associated fuel and meteorological conditions; the use of chemical aids in fire suppression; the development of protective clothing and devices to aid fire-fighters and of more efficient fire-fighting equipment. The fire weather service of the Bureau of Meteorology is being continually expanded to provide both the rural and forest fire-fighting authorities with improved fire weather forecasts.

Recognizing that fire prevention is one of the most important aspects of the problem, intensive campaigns have been conducted to reduce the incidence of man-caused fires. A study of fire causes in recent years reveals that human agencies account for 95 per cent. of all fires, and of this figure at least 80 per cent. are preventable. It is estimated that "burning-off" (much of which is started illegally) accounts for 35 per cent. of all fires. Lightning accounts for a little over 5 per cent. of all fires in Australia, although the incidence of fires caused by lightning is much higher in certain areas, especially the Southern Highlands region in New South Wales and Victoria. Although lightning is a relatively small numerical cause of fire, the percentage area burnt from this cause would be around 20 per cent. This high percentage is due to the multiple fire outbreaks causing fire fighting difficulties and to the general inaccessibility of the areas in which such fires generally occur.

§ 8. Oversea Trade in Forest Products, Timber and Timber Products.

1. **Imports.**—Quantities and values of forest products, timber and timber products imported into Australia during the years 1957–58 to 1959–60 are shown in the following table:—

IMPORTS OF FOREST PRODUCTS, TIMBER AND TIMBER PRODUCTS: AUSTRALIA.

Particulars.	Unit of Quantity.	Quantity.			Value (£A.Co.b. Port of Shipment).		
		1957–58.	1958–59.	1959–60.	1957–58.	1958–59.	1959–60.
Logs not sawn—							
Softwoods (a) ..	'000 sup. ft.	3,090	4,969	3,703	85,026	150,781	117,068
Hardwoods (b) ..	"	40,659	50,212	60,010	998,324	1,253,733	1,585,362
Undressed timber—							
Sleepers ..	"	200	(c)	..	14,777	26	..
Dunnage ..	"	..	..	..	5,360	4,204	4,822
Softwoods (a), n.e.i.—							
Douglas Fir ..	'000 sup. ft.	158,087	147,647	182,265	6,495,877	5,533,649	8,365,462
Radiata Pine ..	"	28,578	33,700	43,500	1,011,408	1,196,846	1,630,525
Other ..	"	19,224	15,370	19,741	1,111,148	936,697	1,723,063
Hardwoods (b), n.e.i. ..	"	54,977	55,412	67,387	3,031,477	2,892,734	3,651,162
Box shooks, n.e.i. ..	"	1,013	633	610	60,520	41,471	38,702
Dressed timber ..	"	20,830	14,906	11,711	1,417,683	996,659	729,825
Veneers ..	'000 sq. ft.	12,007	14,035	13,192	130,750	137,808	146,835
Plywood ..	"	22,869	24,680	29,523	936,538	885,742	1,074,189
Tanning substances ..	cwt.	162,238	137,847	148,542	471,349	383,020	435,348
Sandalwood oil ..	lb.	1,687	1,206	1,402	6,486	5,717	8,050

(a) Non-pored woods.

(b) Pored woods.

(c) Less than 500 super. feet.

Imports of softwood logs in recent years have come almost exclusively from British Borneo and the Solomon Islands, and more than 90 per cent. of the imports of hardwood logs have also come from British Borneo. Imports of undressed softwood timber comprise mainly Douglas Fir (Oregon Pine) from Canada and the United States of America and Radiata Pine from New Zealand. Imports of undressed hardwood timber come mainly from Malaya and British Borneo. Timbers from Scandinavian countries provide most of the dressed timber imports.

Imports of timber products are mainly veneers and plywoods. The Australian Trust Territory of New Guinea provides most of the plywood imports and, together with the United Kingdom, over 75 per cent. of veneer imports.

Tanning substances are the only other forest products imported in significant quantities. The most important of these is wattle bark produced in the Union of South Africa.

2. Exports.—The quantities and values of timber, railway sleepers, veneers, plywood and other timber and forest products exported during the years 1957–58 to 1959–60 are shown in the following table:—

**EXPORTS OF FOREST PRODUCTS, TIMBER AND TIMBER PRODUCTS:
AUSTRALIA.**

Particulars.	Unit of Quantity.	Quantity.			Value (£A.f.o.b. Port of Shipment.)		
		1957–58.	1958–59.	1959–60.	1957–58.	1958–59.	1959–60.
Logs not sawn ..	'000 sup. ft.	6,145	4,257	4,099	389,721	258,732	237,416
Undressed timber (a)—							
Sleepers ..	"	38,393	39,842	32,090	2,283,158	2,287,676	1,775,477
Fence posts, girders and pole blocks ..	"	2,679	1,501	614	114,516	83,932	42,584
Softwoods (b), n.e.i. ..	"	444	387	536	33,876	32,014	47,621
Hardwoods (c), n.e.i. ..	"	16,002	14,682	13,948	1,108,371	981,036	954,300
Dressed timber ..	"	603	863	1,471	62,727	110,982	193,576
Veneers ..	'000 sq. ft.	4,268	7,789	4,037	104,560	219,251	112,888
Plywood ..	"	776	701	757	61,062	60,879	86,045
Tanning substances ..	cwt.	100,836	79,983	138,132	293,478	218,649	351,196
Charcoal ..	"	7,406	4,232	7,049	18,362	18,660	31,103
Eucalyptus oil ..	lb.	354,434	209,541	256,888	131,485	77,083	94,760

(a) Excludes stumps and the like.

(b) Non-pored woods.

(c) Pored woods.

Sleepers make up the largest single forestry item exported from Australia. In 1959–60, India received more than 40 per cent. of Australia's sleeper exports while the United Kingdom, New Zealand and Pakistan each received more than three million superficial feet. Western Australia was the dominant exporting State.

Most of Australia's log and timber exports are of hardwoods. New Zealand received the greater part of exports of logs and almost 40 per cent. of the exports of all undressed timber, other than railway sleepers. The United Kingdom received most of Australia's exports of plywood and veneers.

Exports of tanning substances in 1959–60 were mainly to the United States of America and that country also was the largest importer of eucalyptus oil. More than 90 per cent. of the charcoal exports were shipped to New Zealand, Japan receiving the remainder.

CHAPTER XXVI.

FISHERIES.

NOTE.—Further information on subjects dealt with in this chapter is contained in the annual printed bulletin *Primary Industries, Part II.—Non-Rural Industries and Value of Production* and in the annual mimeograph statistical bulletin *Fishing and Whaling*, particularly as regards types of fish, etc., caught.

§ 1. Introduction.

1. Source of Statistics.—Fisheries statistics in Australia are, in general, collected by the various authorities responsible for the administration of the industry. The fisheries within territorial waters (i.e. within three miles of the shore) are administered by State Departments, while the Commonwealth Fisheries Office, a division of the Department of Primary Industry, develops and administers fisheries in extra-territorial waters and co-ordinates fisheries administration.

Statistics of production of fish, crustaceans, molluscs and pearl-shell and trochus-shell included in this chapter are collected and supplied by State Fisheries Authorities through the Statisticians of the several States. Statistics are provided on a year ended 30th June basis, although figures for pearl-shell and trochus-shell refer to the season ended December or January of the fiscal year shown.

Details of the catch shown in this chapter refer in most instances to the recorded commercial production only. In view of the importance of amateur fishermen in certain types of fishing, details shown (both for particular species and for totals) cannot be taken as representing the total catch. In addition, it is likely that the figures shown may understate to some extent the full commercial catch because no information is available on fish taken for sale by persons not licensed as professional fishermen.

Particulars of whaling are collected and supplied for publication by the Commonwealth Fisheries Office.

Data of imports and exports of fisheries and whaling products are compiled in the Commonwealth Bureau of Census and Statistics as part of the overall statistics of overseas trade.

2. Presentation of Fisheries Statistics.—In the preparation of Australian fisheries production statistics, the quantities of individual products are, generally, in terms of the form in which they are taken from the water. For example, the statistics of fish production published in this chapter are in terms of "estimated live weights" which are calculated from landed weights by using conversion factors for each species in each State. These conversion factors allow for the fact that the quantities of fish reported are frequently in a gutted, headed and gutted, or otherwise reduced condition. Crustaceans are reported on a "whole weight" basis, and molluscs (edible) on a "gross (in-shell) weight basis". The figures of pearl-shell and trochus-shell refer to the actual quantities of dry shell for sale and exclude the weight of the fish.

The catch is generally shown according to the State in whose waters it was taken. However, a quantity of sharks and crayfish taken by Victorian-based fishermen in Tasmanian waters, but marketed in Victoria, is included in the Victorian catch, since the economy of that State is most directly affected. Similarly, pearl-shell taken by Queensland luggers operating in Northern Territory waters is included in the Queensland take. Pearl-shell taken by Japanese fishermen operating in Australian waters is excluded from Australian production figures, although the quantities taken are shown as a footnote to the table on page 1018.

§ 2. The Fishing and Whaling Industries.

1. Resources and Fishing Areas.—(i) *Fish*. The waters surrounding the Australian continent contain a great variety of marine fauna. Despite this, the fish stocks in Australian waters, in common with most other countries of the Southern Hemisphere, are small by comparison with the stocks in the Northern Hemisphere, which supplies most of the world

production. Nevertheless, the Australian catch is low, even after making allowance for the smaller resources available, and the consumption of fish in Australia per head of population is small. Consequently, there is not the pressure on resources necessary to induce expansion in the fishing industry and to encourage the investment of large amounts of capital. On the other hand, even this somewhat restricted Australian demand for fish is not met from purely local sources of supply, and large quantities of fish are imported each year. This is explained by the fact that the fisheries in the estuaries of the Australian coasts (the so-called estuarine fisheries) and those offshore for fish that dwell on the bottom of the sea (the demersal fisheries) have been over-exploited, with a consequent diminution of stocks. On the other hand, of those species of fish which have their environment near the surface of the sea (the pelagic fish), some have been continuously exploited, while others of value to Australia, are still comparatively unexploited. It can be anticipated that the greatest future development of the Australian fishing industry will take place in the pelagic fisheries. However, no great contribution to the supplies of fresh fish can be expected from this source since most of the pelagic species caught are canned or processed.

The principal fishing areas at present are the coastal lakes, streams, estuaries and beaches which for the most part are associated with coastal streams. The offshore demersal grounds fall into two classes—(a) the reefs extending virtually right around Australia, from which cod, snapper, etc., are taken, and (b) the grounds from which flathead, morwong, etc., are taken. The flathead grounds lie on the continental shelf off south-east Australia, chiefly from Port Macquarie to south of Gabo Island and off the eastern Tasmanian coast. The demersal shark grounds lie principally in Bass Strait and on the continental shelf off eastern South Australia. Other demersal grounds also exist in the Great Australian Bight and off the southern part of Western Australia. In November, 1958, the Commonwealth Government assisted in the establishment of a trawling company to test the commercial possibilities of the Great Australian Bight. The grounds of existing pelagic fisheries include those for tuna which is taken in commercial quantities off the New South Wales and South Australian coasts. Barracouta is taken in Bass Strait and off eastern Tasmania. Spanish mackerel is found off the north-eastern coast from about Coff's Harbour to Cairns.

(ii) *Crustaceans*. Of the crustaceans exploited in Australia, crayfish is the most important and is taken on reefs of the continental shelf in the waters of all States. Considerable development has taken place in the crayfish fisheries, particularly in Western Australian and South Australian waters, owing to the opening up of markets in the United States of America for frozen crayfish tails. Crabs of various species are found in practically all coastal waters, while prawns are taken in the temperate waters of Queensland and New South Wales. Lobsters are caught in the fresh-water streams of New South Wales.

(iii) *Molluscs (Edible)*. In the mollusc group, edible oysters of various species are distributed around the entire Australian coastline. Oysters are taken in all States, with the exception of South Australia, and in the Northern Territory, but their commercial cultivation is restricted mainly to New South Wales. Until 1956, scallops were taken commercially in Tasmanian waters only, but since then they have been taken also in Queensland and Western Australia. Small quantities of other molluscs are also taken in some States.

(iv) *Pearl-shell and Trochus-shell*. Australia is the world's largest producer of pearl-shell, which is fished from Cairns in northern Queensland round the north coast of Australia to Exmouth Gulf in Western Australia. Trochus-shell is obtained from Mackay in Queensland to King Sound in Western Australia.

(v) *Whales*. Baleen whales, particularly the humpback whale, migrating from Antarctic waters to their breeding grounds in the warmer waters of low latitudes, pass up both the western and eastern coasts of Australia, returning to the Antarctic in the spring. Two whaling stations operate in Western Australia, one in New South Wales, and one in Queensland. The company operating in New South Wales also operates a station at Norfolk Island. In addition to baleen whales, one of the two Western Australian stations also processes sperm whales, which are taken off the south-west coast of that State throughout the year.

2. *Persons Engaged*.—In the following table, which shows particulars collected in the Population Censuses of Australia at 30th June, 1947 and 1954, the numbers of persons whose "industry" was stated to be "fishing and whaling" are shown together with the numbers engaged in all primary industries and the total work force.

PERSONS ENGAGED: AUSTRALIA.

Particulars.	At Census of 30th June—	
	1947.	1954.
Persons Engaged in—		
Fishing and Whaling No.	10,656	8,637
All Primary Industries No.	563,607	560,100
Total Work Force No.	3,196,431	3,702,022
Persons Engaged in Fishing and Whaling as a Proportion of—		
All Primary Industries %	1.9	1.5
Total Work Force %	0.3	0.3

Particulars of the number of persons engaged in the fishing industry, as shown in licensing records of the various States, are included in § 7, page 1027.

3. Value of Production.—(i) *General.* Although statistics of the value of production of the fishing industry have been on an established basis for some years, the actual collection of statistics of the quantity of fish taken presents many difficulties, and, consequently, any defects which may occur in the quantities must necessarily be reflected in the value of production. Statistics of both the gross value (at principal market) and local value (at place of production) of the fishing industry are available. Particulars of the value of materials used in the process of production are not available for all States, so that value of production cannot be stated on a net basis as has been done with most other industries.

In 1959–60, the local value of fishing and whaling amounted to £12,325,000. The most important State was Western Australia with £4,276,000, followed by New South Wales with £3,101,000.

(ii) *Gross and Local Values, 1959–60.* Values of fishing and whaling production for each State are shown for 1959–60 in the following table. A more detailed reference to the value of production of fishing and whaling and other industries in Australia, as well as a brief explanation of the terms used, is included in Chapter XXX.—Miscellaneous.

GROSS AND LOCAL VALUE OF PRODUCTION: FISHING AND WHALING, 1959-60.

(£'000.)

State or Territory.	Gross Value (Gross Production Valued at Principal Markets).	Marketing Costs.	Local Value (Gross Production Valued at Place of Production).
New South Wales	3,600	499	3,101
Victoria	2,045	274	1,771
Queensland	1,665	217	1,448
South Australia	1,125	150	975
Western Australia	4,311	35	4,276
Tasmania	806	123	683
Northern Territory	71	(a)	71
Australia	13,623	1,298	12,325

(a) Not available.

(iii) *Local Values, 1955-56 to 1959-60.* In the following table, the local value of fisheries production and the local value per head of population are shown by States for the years 1955-56 to 1959-60. Because the value of materials used in the course of production is not available for all States, it is not possible to show a comparison of net values.

LOCAL VALUE OF FISHING AND WHALING PRODUCTION.

Year.	N.S.W.	Vic.	Q'ld.	S.A.	W.A.	Tas.	Total.(a)
LOCAL VALUE. (£'000.)							
1955-56	2,684	734	1,471	995	2,406	505	8,884
1956-57	2,939	1,178	1,575	1,295	2,737	609	10,506
1957-58	2,792	1,104	1,542	1,074	3,226	508	10,402
1958-59	2,947	1,265	1,343	1,071	3,867	664	11,243
1959-60	3,101	1,771	1,448	975	4,276	683	12,325

LOCAL VALUE PER HEAD OF POPULATION. (£.)

1955-56	0.8	0.3	1.1	1.2	3.6	1.6	1.0
1956-57	0.8	0.4	1.1	1.5	4.0	1.9	1.1
1957-58	0.8	0.4	1.1	1.2	4.6	1.5	1.1
1958-59	0.8	0.5	0.9	1.2	5.4	1.9	1.1
1959-60	0.8	0.6	1.0	1.0	5.9	2.0	1.2

(a) Includes Northern Territory.

§ 3. Fisheries Production.

1. *Summary of Production of Fisheries.*—The following table shows the production and gross values of the various fisheries products by States for the year 1959-60.

FISHERIES PRODUCTION: QUANTITY AND GROSS VALUE OF CATCH, 1959-60.

Particulars.	Unit.	N.S.W.	Vic.(a)	Q'ld.	S.A.	W.A.	Tas.(a)	N.T.	Aust.
Fish—									
Estimated Live Weight	'000 lb.	29,716	15,438	8,218	11,006	10,255	3,173	332	78,138
Gross Value ..	£'000.	2,077	1,724	631	650	610	123	35	5,850
Crustaceans—									
Gross Weight ..	'000 lb.	4,463	1,507	4,663	3,500	19,752	2,931	..	36,816
Gross Value ..	£'000.	695	302	554	475	3,039	496	..	5,561
Molluscs(b)—									
Gross (in-shell) Weight	'000 lb.	12,164	336	1,971	..	154	4,579	(c)	19,204
Gross Value ..	£'000.	798	20	72	..	12	187	(c)	1,089
Pearl-shell(d)(e)—									
Weight ..	'000 lb.	..	..	1,082	..	1,138	..	188	2,408
Gross Value ..	£'000.	..	..	235	..	287	..	36	558
Trochus-shell(d)—									
Weight ..	'000 lb.	..	..	847	..	22	..	..	869
Gross Value ..	£'000.	..	..	76	..	2	..	..	78

(a) Catch by Victorian fishermen in Tasmanian waters, comprising 1,512,000 lb. estimated live weight of shark valued at £109,000 and 670,000 lb. crayfish valued at £134,000 included in Victoria. (b) Excludes small quantities of pipis in New South Wales, scallops in Western Australia and oysters in Northern Territory, particulars of which are not available for publication. (c) See footnote (b).

(d) Western Australia, season ended December, 1959; Queensland and Northern Territory, season ended January, 1960. (e) Excludes 861,000 lb. pearl-shell taken by Japanese pearlers operating in Australian waters.

In the table below, corresponding particulars are shown for the years 1955-56 to 1959-60.

**FISHERIES PRODUCTION : QUANTITY AND GROSS VALUE OF CATCH,
AUSTRALIA.**

Particulars.	Unit.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
Fish—						
Estimated Live Weight ..	'000 lb.	63,298	75,403	72,016	74,416	78,138
Gross Value ..	£'000.	4,621	5,714	5,228	5,294	5,850
Crustaceans—						
Gross Weight ..	'000 lb.	25,474	24,815	27,504	33,971	36,816
Gross Value ..	£'000.	2,875	3,284	3,772	4,585	5,561
Molluscs(a)—						
Gross (in-shell) Weight ..	'000 lb.	15,632	17,444	14,905	17,955	19,204
Gross Value ..	£'000.	788	861	825	1,037	1,089
Pearl-shell(b)—						
Weight ..	'000 lb.	2,913	3,724	4,102	2,890	2,408
Gross Value ..	£'000.	771	1,006	995	561	558
Trochus-shell—						
Weight ..	'000 lb.	2,114	1,911	1,229	916	869
Gross Value ..	£'000.	346	357	184	106	78

(a) Excludes pipis in New South Wales, scallops in Western Australia and oysters in Northern Territory for all years. Excludes oysters in Western Australia for years prior to 1959-60. (b) Excludes pearl-shell taken by Japanese pearlers operating in Australian waters. For quantities excluded see footnote to table on page 1018.

2. **Fish.**—The development of Australian fisheries proper has almost invariably occurred in the same sequence at each centre. The earliest fisheries were on-shore, followed by demersal reef fishing using long lines. Trawling operations then followed line fishing in suitable areas, and more recently the exploitation of pelagic fisheries has commenced.

The first major development of the demersal fishing industry came with the institution of trawling operations off the New South Wales coast in 1918, firstly by the New South Wales Government and later by private enterprise, and the fleet of vessels rapidly expanded. In recent years, the number of Danish seine vessels has continued to increase, particularly after the introduction of an improved multi-purpose type of vessel which can be used for tuna fishing as well as for seine trawling. Although steam trawlers based in Sydney formed an important part of the fleet in earlier years, only one boat of this type is still operating. A large diesel-powered trawler, based on Adelaide, now operates in the Great Australian Bight. Since 1930, fishing for school and gummy shark has rapidly extended its area of operations, particularly off the Victorian and Tasmanian coasts. A great impetus was given to this fishery during the war years by the demand for livers for fish oil production for medicinal purposes. This demand, however, eased with the return of cod-liver oil and availability of synthetic vitamin "A".

As far as pelagic fisheries are concerned, the growth of the Australian tuna fishing industry has been substantial in recent years. After the introduction of the pole fishing method in 1950, the catch of tuna increased considerably and amounted to 7.1 million lb. in 1959-60. Practically all this quantity was canned.

At the same time, the demand to justify an increased production of other pelagic fish, such as pilchards, sprats, jack mackerel and anchovies, has not been similarly encouraging. With pilchards caught in southern waters of Australia and sprats taken in Tasmanian waters there is usually some difficulty in finding a market. Considerable quantities of young jack mackerel, taken off the east coast of Tasmania and off Eden in New South Wales, are used as bait in tuna fishing. Anchovies caught by Victorian fishermen are used for manufacturing fish paste.

In the following table, total Australian recorded production of the main types of fish caught is shown by States in terms of estimated live weight for the year 1959-60.

FISH: PRODUCTION BY TYPE, 1959-60.
(’000 lb. estimated live weight.)

Particulars.	N.S.W.	Vic. (a)	Q’ld.	S.A.	W.A.	Tas. (a)	N.T.	Aust.
Marine Types—								
Mullet	6,403	769	3,295	625	1,220	24	4	12,340
Shark	1,326	(a) 3,875	33	1,825	487	(a) 911	(b)	8,457
Australian Salmon	1,954	1,951	..	630	2,741	325	..	7,601
Tuna	3,927	88	4	3,071	1	5	3	7,099
Barracouta	12	4,291	..	..	(b)	1,568	..	5,871
Flathead	2,814	1,815	169	..	25	79	..	4,902
Snapper	1,500	153	120	485	2,340	..	4	4,602
Whiting	286	464	420	1,600	527	..	..	3,297
Leatherjacket	2,390	24	(b)	..	62	..	..	2,476
Morwong	2,251	71	..	..	5	2	..	2,329
Mackerel	211	..	1,347	..	82	(b)	1	1,641
Ruff .. ..	..	27	..	400	1,079	..	..	1,506
Luderick	1,108	67	24	..	..	..	..	1,199
Tailor	425	..	624	..	150	..	..	1,199
Bream	758	128	164	..	72	..	1	1,123
Garfish	193	211	106	410	78	25	1	1,024
Other	3,443	1,266	1,812	1,360	1,386	234	318	9,819
Total Marine	29,001	15,200	8,118	10,406	10,255	3,173	332	76,485
Freshwater Types	715	238	100	600	..	..	..	1,653
Total	29,716	15,438	8,218	11,006	10,255	3,173	332	78,138

(a) 1,512,000 lb. shark taken by Victorian fishermen in Tasmanian waters is included in Victoria.
(b) Less than 500 lb.

The production of these common types of fish is shown in the following table for the years 1955-56 to 1959-60:—

FISH: PRODUCTION BY TYPE, AUSTRALIA.
(’000 lb. estimated live weight.)

Particulars.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
Marine Types—					
Mullet	11,576	11,244	11,566	14,063	12,340
Shark	6,987	8,438	8,241	7,375	8,457
Australian Salmon	7,652	12,164	10,561	8,543	7,601
Tuna	1,141	2,262	3,230	5,493	7,099
Barracouta	3,445	5,468	3,903	4,300	5,871
Flathead	4,958	5,015	4,108	4,599	4,902
Snapper	3,127	3,427	3,144	3,115	4,602
Whiting	2,804	2,680	3,000	2,990	3,297
Leatherjacket	2,280	1,885	1,658	1,866	2,476
Morwong	2,712	3,895	3,103	2,572	2,329
Mackerel	1,600	1,493	1,735	2,193	1,641
Ruff	1,068	1,918	1,563	1,860	1,506
Luderick	991	897	1,025	1,063	1,199
Tailor	987	1,185	894	845	1,199
Bream	1,152	982	1,064	1,207	1,123
Garfish	1,147	1,633	1,139	1,079	1,024
Other	7,790	8,959	9,814	8,926	9,819
Total Marine	61,417	73,545	69,748	72,089	76,485
Freshwater Types	1,881	1,858	2,268	2,327	1,653
Total	63,298	75,403	72,016	74,416	78,138

Total production of fish by States for the years 1955-56 to 1959-60 is shown in the following table.

FISH: PRODUCTION.

('000 lb. estimated live weight.)

State or Territory.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
New South Wales	23,062	28,992	27,925	29,632	29,716
Victoria(a)	10,826	14,136	13,348	11,718	15,438
Queensland	9,668	9,447	9,034	9,930	8,218
South Australia	7,328	9,688	9,591	9,990	11,006
Western Australia	9,768	9,545	9,783	10,114	10,255
Tasmania(a)	2,545	3,416	2,175	2,797	3,173
Northern Territory	101	179	160	235	332
Australia	63,298	75,403	72,016	74,416	78,138

(a) Catch by Victorian fishermen in Tasmanian waters is included in Victoria.

3. Crustaceans.—In terms of gross value of catch, the importance of crustaceans has increased in recent years, and in 1959-60 was nearly equal to that of fish. The crayfish is the most important crustacean, being caught in pots or traps in all States. Crayfish fisheries have been developed greatly since the 1939-45 War in order to take advantage of the market in the United States of America for frozen crayfish tails, the total catch having increased from approximately 3 million lb. in 1945-46 to more than 28 million lb. in 1959-60. Of the total catch in 1959-60, Western Australia produced nearly 70 per cent.

Prawns are taken by otter trawl, mainly in Queensland and New South Wales. In 1959-60, Queensland accounted for 51 per cent. of the total catch and New South Wales for 47 per cent.

Approximately two-thirds of Australia's production of crabs is taken from Queensland waters, and nearly all of the remainder is caught in New South Wales.

Commercial lobster production, apart from the Queensland shovel-nosed lobster which is scientifically classified as a crayfish, is restricted to a single freshwater species, *Euastacus serratus*, from New South Wales streams.

Details of production of crustaceans are shown by States in the table below on a gross weight basis for the year 1959-60.

CRUSTACEANS: PRODUCTION BY TYPE, 1959-60.

('000 lb. gross weight.)

Type.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Aust.
Crayfish .. (a)	507	(b) 1,500	(c) 40	3,500	19,545	(b) 2,931	28,023
Prawns ..	3,624	7	3,986	..	132	..	7,749
Crabs ..	332	..	637	..	75	..	1,044
Total ..	4,463	(b) 1,507	4,663	3,500	19,752	(b) 2,931	36,816

(a) Includes catch of freshwater lobster (15,000 lb. in 1959-60). (b) Catch of crayfish by Victorian fishermen in Tasmanian waters (670,000 lb. in 1959-60) is included in Victoria. (c) Shovel-nosed lobster (*Thenus orientalis*).

The following table contains details of production of crustaceans in Australia for the years 1955-56 to 1959-60.

CRUSTACEANS: PRODUCTION BY TYPE, AUSTRALIA.

('000 lb. gross weight.)

Type.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
Crayfish(a)	18,456	18,905	21,991	26,314	28,023
Prawns	6,148	5,075	4,687	6,751	7,749
Crabs	870	835	826	906	1,044
Total	25,474	24,815	27,504	33,971	36,816

(a) Includes freshwater lobster.

4. Molluscs (edible).—Initially the Australian oyster fisheries depended solely upon the harvesting of naturally grown stock in littoral and submarine areas. However, the stocks soon deteriorated and attention was turned to methods of cultivation. Commercial oyster farming is carried on mainly in New South Wales, where there has been constant improvement in methods and the present technique in certain areas is highly efficient. In 1959-60, New South Wales provided more than 95 per cent. of the Australian production.

Scallops are taken by dredge in Tasmanian waters and by trawl in Queensland waters. Tasmania is the principal producing State and in 1959-60 contributed 74 per cent. of the recorded Australian production.

Of the other molluscs taken, squid is the most important. Smaller quantities of cuttlefish, octopus, abalone and pipi have been taken from time to time.

Details of production of molluscs are shown by States in the table below on a gross (in-shell) weight basis for the year 1959-60.

MOLLUSCS: PRODUCTION BY TYPE, 1959-60.

('000 lb. gross (in-shell) weight.)

Type.	N.S.W.	Vic.	Qld.	W.A.	Tas.	N.T.	Aust.
Oysters	12,164	91	294	67	74	(a)	(b) 12,690
Scallops .. ..	..	..	1,600	(a)	4,505	..	(b) 6,105
Squid .. ..	..	110	77	23	..	..	210
Cuttlefish .. ..	..	..	..	60	..	..	60
Octopus .. ..	..	48	..	4	..	..	52
Pipis	(a)	..	..	..	..	..	(a)
Mussels .. ..	..	87	..	..	..	..	87
Total	c 12,164	336	1,971	(d) 154	4,579	(a)	(e) 19,204

(a) Not available for publication. (b) Excludes States marked (a). (c) Excludes pipis.
(d) Excludes scallops. (e) Excludes oyster production in the Northern Territory, scallop production in Western Australia and pipi production in New South Wales.

The table below shows details of total production of edible molluscs in Australia for the years 1955-56 to 1959-60.

MOLLUSCS: PRODUCTION BY TYPE, AUSTRALIA.

('000 lb. gross (in-shell) weight.)

Type.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
Oysters	(a) 9,561	(a) 10,264	(a) 10,562	(b) 12,885	(c) 12,690
Scallops	5,988	7,074	(a) 4,207	(a) 4,786	(a) 6,105
Squid	83	106	134	225	210
Cuttlefish .. ..	..	..	..	57	60
Octopus .. ..	..	..	..	2	52
Abalone .. ..	..	..	2	..	..
Pipis	(d)	(d)	(d)	(d)	(d)
Mussels .. ..	..	..	..	..	87
Total(e)	15,632	17,444	14,905	17,955	19,204

(a) Excludes Western Australia.

(b) Excludes Western Australia and Northern Territory.

(c) Excludes Northern Territory.

(d) Not available for publication.

(e) Incomplete; see

notes to individual types.

5. Pearl-shell and Trochus-shell.—Pearl-shell and trochus-shell are taken from tropical waters of Australia, mostly during the period from April to January. In Western Australia, annual production is recorded for the year ended December, while in Queensland and Northern Territory the annual production is recorded for the year ended January. Statistics in this chapter are these annual production figures related to the financial year ending 30th June following the close of the season.

Australia's pearling industry, which ceased operations on Japan's entry into the war in December, 1941, was faced at the end of hostilities not only with a shortage of ships and gear but also with the scarcity of expert labour, particularly divers. Before the war, a large proportion of the key men were Japanese; others included Malays, Chinese, Koepangers, Filipinos, Papuans and Torres Strait Islanders. The Commonwealth Government, with the view of overcoming this shortage, permitted in 1953 the employment of 35 Japanese divers, tenders and engineers in Australian luggers. At 31st January, 1960, the number of Japanese, employed mainly in Western Australia and in the Northern Territory, was 125, out of a total number of 1,136 employed in the industry. Queensland, with a more ready source of labour from Torres Strait Islands, was able to expand its fishing more rapidly, and in the 1949 season achieved its highest post-war production of 1,191 tons. At 31st January, 1960, Queensland pearlers employed 619 Torres Strait Islanders in its total personnel of 769. Torres Strait Islanders therefore represented more than half of the total number of 1,136 employed in the Australian pearl-fishing industry at that date.

Australia's pearl fishing takes place offshore to the 25 fathom line. In September, 1953, following the arrival of a Japanese pearl-fishing fleet in Australian waters, the Commonwealth Pearl Fisheries Act 1952-53 was brought into operation. This Act aims at the management of the pearl-shell resources in accord with Australia's proclamation of sovereign rights over the natural resources of the sea bed and subsoil to the 100 fathom line. Japan disputed Australia's right to apply this legislation to foreign ships, and Australia agreed to refer the dispute to the International Court of Justice on condition that meantime Japanese pearling in Australian waters would be conducted in conformity with the Australian Government's policy of regulation and conservation, and that Japan would abide by the Court's decision. On these conditions, a Japanese pearling fleet has operated in prescribed waters since 1954.

In 1959-60, Australian production of pearl-shell and trochus-shell was 2,408,000 lb. and 869,000 lb. respectively. In addition, Japanese pearlers took 763,000 lb. of pearl-shell from Australian waters, but as this was not landed in Australian ports it is not regarded as Australian production. The seasons of highest recorded production of pearl-shell have been—Queensland, 3,200,000 lb. in 1929; Western Australia, 4,480,000 lb. in 1917; and Northern Territory, 1,800,000 lb. in 1937.

In the following table, particulars of the quantity of pearl-shell and trochus-shell produced are shown for the years 1955–56 to 1959–60.

PEARL-SHELL AND TROCHUS-SHELL: PRODUCTION.
(‘000 lb.)

Particulars.	1955–56.	1956–57.	1957–58.	1958–59.	1959–60.
Pearl-shell(a)—					
Queensland(b)	1,142	1,127	1,131	889	1,082
Western Australia(c) ..	1,460	2,012	2,218	1,687	1,138
Northern Territory(b) ..	311	585	753	314	188
Australia	2,913	3,724	4,102	2,890	2,408
Trochus-shell—					
Queensland(b)	2,101	1,900	1,207	887	847
Western Australia(c) ..	13	11	22	29	22
Australia	2,114	1,911	1,229	916	869

(a) Excludes pearl-shell taken by the Japanese pearling fleet which operated in Australian waters:—1955–56, 1,657,000 lb.; 1956–57, 1,458,000 lb.; 1957–58, 1,572,000 lb.; 1958–59, 1,064,000 lb.; 1959–60, 763,000 lb. (b) Season ended January of years shown. Shell taken by Queensland luggers operating in Northern Territory waters is included in Queensland. (c) Season ended December of years shown.

No complete particulars are available of production of natural pearls in Australia.

In 1956, the production of cultured pearls was introduced into Australia, with the establishment of a station at Augustus Island, off the northern coast of Western Australia. This station was later moved to a harbour, Kuri Bay, on Brecknock Island. This station, 130 miles north-east of Derby, produced its first crop of high quality pearls in 1958. Following the success of the operations at Kuri Bay, two pearl culture farms have commenced operations in northern Queensland. Particulars of production of cultured pearls are not available for publication.

Exports of pearls (including cultured pearls) from Australia were valued at £64,000 in 1958–59 and £47,000 in 1959–60.

§ 4. Marketing and Distribution of Fish.

Most of the fish taken in Australian waters is sold in the metropolitan markets, although many of the fisheries are considerably distant from these centres. The arrangements for marketing of fresh fish vary from State to State, and in some cases the State Government exercises a certain amount of control.

In New South Wales, marketing of fish is controlled by the Chief Secretary. The bulk of the State's catch is sold through the Sydney market, owned by municipal authorities but controlled by the Chief Secretary. A small branch market operates in Wollongong, and the eighteen fishermen's co-operatives market fish in their own regions also. By law, all fish for human consumption must be sold through a recognized market (i.e. Sydney, Wollongong or the co-operatives), unless ministerial consent for direct sale to consumers has been obtained.

In Victoria, there are no fish marketing regulations, and most of the catch, as well as considerable quantities of interstate fish, is sold by agents at the main Melbourne market, owned and controlled by the City of Melbourne. In addition, the fishermen's co-operatives engage in the wholesale and retail sale of fish within their own areas.

In Queensland, the Government Fish Board controls all marketing and, in addition to the main Brisbane market, regulates the sale of fish through eighteen coastal markets and eight agencies extending along the coast from Southport to Port Douglas.

In South Australia, the Adelaide city fish market, the only one in the State, is owned and operated by the South Australian Fishermen's Co-operative. Of the total State catch, approximately 80 per cent. is handled by the co-operative, the balance being sold privately either to local or interstate fish agents.

In Western Australia, the Perth market is established as a government instrumentality, but handles only a portion of the fish offered for sale in the main metropolitan area. Besides this, there are two other markets in Fremantle. One is conducted by the local fishermen's co-operative and the other by a private concern. Both are erected on land leased from the Crown. Outside the main metropolitan area, marketing is conducted on a more or less private basis.

In Tasmania, there is no established market, and the sale of fish is conducted on a private basis with fish agents playing a considerable part in the disposal of fish locally and to the mainland.

§ 5. Freezing, Processing and By-products.

1. **Freezing.**—Cold storage facilities, which were rather inadequate in the past, have in most States been improved and increased in recent years. In Queensland and New South Wales particularly, most depots which have been established at fishing ports have now been equipped with cold storage space. In several States, there has been a development of establishments equipped for snap freezing of fish, in particular the freezing of crayfish tails, prawns and scallops for export. In Western Australia, 41 vessels have been equipped with freezing plants to process crayfish at sea.

2. **Processing.**—The attempt to establish the fish preserving industry at the commencement of this century met with little success, although a bounty was paid to encourage production. The industry, however, continued to operate, but there was no marked development until after the 1939–45 War. Production of canned fish in 1959–60 was 8,133,000 lb.

In addition to the fish canned in 1959–60, 296,000 lb. smoked fish, 1,376,000 lb. fish paste, more than 7,500,000 lb. frozen crayfish tails for export, and a considerable quantity of quick-frozen fish for the local market were produced.

In 1939, New South Wales and Tasmania were the only States canning fish, but the industry has since been extended to Victoria, South Australia and Western Australia. Details of production are given in the following table for the years 1955–56 to 1959–60:—

FISH PROCESSING (EXCEPT FREEZING): AUSTRALIA.
(‘000 lb.)

Particulars.	1955–56.	1956–57.	1957–58.	1958–59.	1959–60.
Number of Factories	11	13	14	18	19
Fish Used (a)—					
Whole	3,528	8,072	9,293	10,603	11,739
Headed and/or Gutted ..	7,075	7,339	5,600	4,825	4,464
Estimated Live Weight Equivalent (b)	11,900	16,700	15,900	16,300	17,000
Production—					
Canned Fish (c)—					
Australian Salmon	(d)	(d)	5,198	4,756	4,559
Tuna	(d)	(d)	1,300	1,609	1,986
Total	6,008	8,257	7,856	7,782	8,133
Other	(d)	(d)	1,358	1,417	1,588
Canned Oysters .. ..	..	(e)	(e)	(e)	(e)
Smoked Fish	123	487	439	286	296
Fish Paste	(e)	(e)	1,700	1,314	1,376
Fish Meal	(e)	(e)	(e)	(e)	(e)

(a) Fish used for canning (including fish loaf), smoking and the manufacture of fish paste, but excluding the weight of oysters used for canning. (b) The weight of headed and/or gutted fish is taken as 85 per cent. of live weight. (c) Includes fish loaf, fish cakes, etc. (d) Not available. (e) Not available for publication.

The varieties canned in the several States differ according to the species caught, but complete details for each variety are not available. Tuna is the principal variety canned in New South Wales and South Australia, while barracouta is of major importance in Victoria and Tasmania. The greater proportion of fish canned in Western Australia is Australian salmon.

3. By-products.—Processing of offal for fish-meal, etc., has been established in certain States. The processing of livers for vitamin-rich oils was undertaken in several States but, as mentioned in § 3, para. 2, page 1019, production has fallen to a low level in recent years.

§ 6. Consumption of Fish.

Particulars of the estimated supplies of fish, crustaceans and molluscs available for consumption per head of population, in terms of edible weight, are included in the table below for the years 1955–56 to 1959–60. For the purpose of compiling this table, the non-commercial fish catch has been estimated at ten per cent. of the recorded catch.

Consumption of fisheries' products rose from 9.5 lb. per head in 1958–59 to 11.3 lb. in 1959–60. This increase was caused mainly by a substantial increase in imported fresh and frozen fish, the consumption of which has risen to 3.2 lb. per head, equalling that of fresh and frozen fish of Australian origin.

ESTIMATED SUPPLIES OF FISH, ETC., AVAILABLE FOR CONSUMPTION: AUSTRALIA.

(lb. edible weight per head per annum.)

Particulars.	1955–56.	1956–57.	1957–58.	1958–59.	1959–60.
Fresh or Frozen—					
Fish—					
Australian Origin	3.0	3.3	3.1	3.1	3.2
Imported	1.9	1.8	2.1	2.2	3.2
Crustaceans and Molluscs ..	1.0	0.9	0.8	0.9	1.0
Cured (incl. Smoked and Salted) ..	1.1	0.5	1.3	0.8	1.1
Canned—					
Australian Origin	0.6	0.8	0.7	0.8	0.8
Imported	2.5	1.7	1.8	1.7	2.0
Total	10.1	9.0	9.8	9.5	11.3

§ 7. Boats and Equipment.

The boats used for the inshore and estuary fisheries are mostly small vessels propelled by diesel or petrol engines of low power. The fishing gear used includes mesh nets, beach seines, various types of pots and traps, trolling and hand lines, and small otter type prawn trawls. The offshore vessels range in length from 30 feet to approximately 100 feet, and are almost invariably powered by diesel engines. Many of them have insulated holds to carry fish in ice, while some of the crayfish boats are fitted with wells in which the catch is kept alive. Other vessels have dry or brine refrigeration.

Almost every type of fishing equipment is used. This includes otter trawls for fish and prawns, Danish seines, beach seines for Australian salmon, mullet and other species, beehive type pots for crayfish, traps for crayfish and reef fish, long lines for fish and edible shark, and trolling gear for pelagic fishes including spanish mackerel, barracouta and the tunas. Most of the tuna is now taken by the live bait pole fishing method, the bait fish generally being caught with a lampara net, although several of the larger vessels have recently employed small purse seine or ring nets very successfully for this purpose.

The following two tables show details of the number of boats, value of boats and equipment, and number of persons employed in the taking of fish, crustaceans, molluscs (edible), pearl-shell and trochus-shell, together with some other particulars of oyster fisheries. These details have been compiled from information supplied for licensing purposes.

Because of the variations in definitions and licensing procedures in the several States, the data shown are not comparable between States. In some States, besides professional full-time fishermen, amateur part-time fishermen are licensed, and the figures shown are overstated to this extent. These data should not be used as a guide to the relative effort applied in obtaining the recorded catch. Figures for 1959-60 are not all comparable with those for previous years for the following reasons: in Queensland, numbers of men employed and boats engaged now refer only to those licensed to take fish for sale, whereas previously all licensed men and boats were included; in South Australia, the value of boats and equipment has been adjusted upward compared with previous years.

Figures of the number of persons engaged full-time in fishing and whaling as recorded in recent population censuses are shown in § 2, page 1017.

FISHERIES: BOATS AND EQUIPMENT IN USE AND PERSONS ENGAGED, ETC., 1959-60.

Particulars.	Unit.	N.S.W.	Vic.	Qld.	S.A.	W.A. (a)	Tas.	N.T.	Aust.
General Fisheries (b)(c)—									
Boats Engaged ..	No.	2,485	652	1,651	1,650	960	463	29	7,890
Value of Boats and Equipment ..	£'000.	1,878	1,355	1,551	1,700	2,601	1,020	22	10,127
Persons Engaged ..	No.	1,803	891	1,767	6,156	1,673	958	71	13,319
Edible Oyster Fisheries—									
Boats Engaged ..	No.	1,164	5	36	..	2	6	(d)	(e) 1,213
Value of Boats and Equipment ..	£'000.	343	8	10	..	3	4	(d)	(e) 368
Persons Engaged ..	No.	796	6	93	..	12	10	(d)	(e) 917
Leases Granted ..	"	4,668	5	224	..	..	..	..	4,897
Length of Foreshore in Leases ..	'000 yds.	844	16	(f)	..	..	..	..	(e) 860
Area of Offshore Leases	Acres.	5,537	..	..	..	..	..	..	5,537
Pearl, Pearl-shell and Trochus-shell Fisheries (g)—									
Boats Engaged ..	No.	..	..	51	..	29	..	5	85
Value of Boats and Equipment ..	£'000.	..	..	295	..	180	..	40	515
Persons Engaged ..	No.	..	..	769	..	312	..	39	1,120
Total, All Fisheries(c)—									
Boats Engaged ..	No.	3,649	657	1,738	1,650	991	469	(h) 34	(e) 9,188
Value of Boats and Equipment ..	£'000.	2,221	1,363	1,856	1,700	2,784	1,024	(h) 62	(e) 11,010
Persons Engaged ..	No.	2,599	897	2,629	6,156	1,997	968	(h) 110	(e) 15,356

(a) Year ended 31st December, 1959. (b) Excludes edible oyster fisheries but includes crustacean and other mollusc fisheries. (c) See text above referring to comparison with previous years. (d) Not available for publication. (e) Incomplete; see footnotes to individual States.

(f) Not available. (g) Excludes Japanese pearling fleet which operated in Australian waters. (h) Excludes details for oyster fisheries.

**FISHERIES: BOATS AND EQUIPMENT IN USE AND PERSONS ENGAGED, ETC.:
AUSTRALIA.**

Particulars.	Unit.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
General Fisheries(a)—						
Boats Engaged	No.	10,243	10,475	10,241	10,139	(b) 7,890
Value of Boats and Equip- ment	£'000.	6,606	7,039	7,476	8,344	(b)10,127
Persons Engaged	No.	20,647	21,707	20,876	21,020	(b)13,319
Edible Oyster Fisheries(c)—						
Boats Engaged	No.	790	1,031	1,070	1,121	1,213
Value of Boats and Equip- ment	£'000.	115	160	167	(d) 370	368
Persons Engaged	No.	799	870	909	810	917
Leases Granted	"	5,474	5,452	5,042	4,965	4,897
Length of Foreshore in Leases(e)	'000 yds.	1,127	970	893	867	860
Area of Offshore Leases ..	Acres.	5,251	6,037	5,415	5,508	5,537
Pearl, Pearl-shell and Trochus- shell Fisheries(f)						
Boats Engaged	No.	136	150	151	110	85
Value of Boats and Equip- ment	£'000.	727	826	790	647	515
Persons Engaged	No.	1,571	1,742	1,487	1,419	1,120
Total, All Fisheries(f)(g)—						
Boats Engaged	No.	11,169	11,656	11,462	11,370	9,188
Value of Boats and Equip- ment	£'000.	7,448	8,025	8,433	9,361	11,010
Persons Engaged	No.	23,017	24,319	23,272	23,249	15,356

(a) Excludes edible oyster fisheries, except in Tasmania for years prior to 1959-60, but includes crustacean and other mollusc fisheries. (b) Figures not comparable with those for previous years. See text preceding table on page 1027.

(c) Excludes particulars for Western Australia and Tasmania for years prior to 1959-60 and for Northern Territory for all years shown. (d) Figures for years prior to 1958-59 exclude the value of stakes, timber frames, etc., used on oyster leases in New South Wales.

(e) Excludes Queensland. (f) Excludes Japanese pearling fleet which operated in Australian waters.

(g) Excludes particulars of edible oyster fisheries in Western Australia for years prior to 1959-60 and in Northern Territory for all years shown.

§ 8. Whaling.

The whaling industry was re-established in Australia in 1949, operations being carried out from shore-based stations. In that year, a station began operating at Point Cloates, Western Australia. The Australian Whaling Commission, established in 1949, built a station at Babbage Island near Carnarvon, Western Australia, and began operations towards the end of the 1950 season. In 1956, legislation was passed to dissolve the Commission and its assets were sold to the private company operating at Point Cloates. The operations of this company were transferred to Babbage Island and the Point Cloates station was closed in 1956. Other stations commenced operations in the following years: Cheynes Beach, near Albany (Western Australia), in 1952, Moreton Bay (Queensland) in 1952, Byron Bay (New South Wales) in 1954, and Norfolk Island in 1956.

Each of the stations operating is allowed a quota (in terms of humpback whales) determined by the Minister for Primary Industry, acting on the advice of the Director of Fisheries, who represents Australia on the International Whaling Commission. This catch quota was first introduced in Australia in 1951 and aims at conserving the stock of whales in order that the industry may continue on a stable basis.

Sperm whaling, which commenced in 1955 on an exploratory basis, is still being carried out on the Western Australian coast, but the catch of this species is not subject to the quotas determined.

There is no prescribed season for sperm whaling, but other details shown in the following table relate to seasons extending from 1st May to 31st October of each year.

WHALING STATISTICS: AUSTRALIA AND NORFOLK ISLAND.

(Source: Fisheries Division, Department of Primary Industry.)

Particulars.	Unit.	1956.	1957.	1958.	1959.	1960.
Seasonal Quota(a)	No.	1,990	1,960	1,960	2,080	1,850
Whales Taken and Processed(a)	"	1,990	(b)1,961	1,812	1,673	1,530
Average Length of Whales Processed(c)	ft.	41.1	40.7	40.8	40.3	40.3
Average Production of Oil per Whale(c)	Barrel(d)	51.6	52.5	54.1	52.3	51.3
Persons Employed—						
At Sea(e)	No.	124	140	157	165	155
Ashore(e)	"	396	431	440	468	445
Whale Oil Produced—Quantity(c)	Barrel(d)	102,366	102,966	97,698	88,415	78,378
Whale Products—Value(c)	£'000.	2,233	2,205	1,866	1,727	1,453

(a) In terms of humpback whales. For quota purposes, 2½ humpback whales are taken as equivalent to 1 blue whale, 2 fin whales, 6 sei whales, or 6 bryde whales. Sperm whales are not subject to quota restrictions. (b) Includes 1 humpback whale taken on special permit. (c) Excludes sperm whales, particulars of which are not available for publication. (d) 6 barrels = 1 ton. (e) Estimated.

§ 9. Inquiries and Research.

1. **General.**—Research into the Australian fishing industry has been directed mainly towards seeking an explanation of the very slow rate of development and the conditions prevailing within the industry, as well as the paucity of supplies available to the public. Details of the inquiries undertaken and the recommendations arising from them are given in Official Year Book No. 38, page 1082, and subsequent developments are outlined below.

2. **Commonwealth Scientific and Industrial Research Organization, Division of Fisheries and Oceanography.**—Details of the establishment, organization and functions of the Division of Fisheries of the Commonwealth Scientific and Industrial Research Organization are given in Official Year Book No. 38, page 1083. The scientific basis on which the work of the Division is carried out has now been widened, and the name of the Division has been amended to "Division of Fisheries and Oceanography".

Research carried out by the Division has assisted greatly in the development and conservation of Australian fisheries. Details are given in Official Year Book No. 41, page 848, and in previous issues.

3. **Fisheries Division, Department of Primary Industry.**—The creation of the Fisheries Division of the Department of Primary Industry arose out of a Tariff Board recommendation in 1941. Details of the establishment, organization and functions of the division, which was formerly known as the Commonwealth Fisheries Office, are given in Official Year Book No. 38, page 1084.

In accordance with the Tariff Board report, scientific research, as distinct from developmental and administrative functions, was left to the Commonwealth Scientific and Industrial Research Organization, which had established a Division of Fisheries for this purpose in 1937.

The Fisheries Division of the Department of Primary Industry is responsible for all forms of fishing in extra-territorial waters, commercial development of fisheries, management of marine resources (fishing, pearling and whaling), co-ordination of conservation measures imposed by the States and the Commonwealth, economic research statistics, and negotiations with foreign nations on fisheries matters, information and extensions.

4. Fisheries Development Trust Account.—In early 1956, the assets of the Australian Whaling Commission, an authority set up by the Commonwealth Government in 1949, were disposed of to private interests. The finance derived from the sale, authorized by the Fishing Industry Act 1956, was paid into a fund, known as the Fisheries Development Trust Account. Provision was made in the Act for the moneys to be used for the purposes of developing the fishing industry through research, direct financial assistance, the development of particular fisheries, training schemes, and the dissemination of information and advice through various publications and the press.

An Advisory Committee on fisheries development was formed to advise the Minister on specific projects for fisheries development.

Projects which have so far been approved include:—the purchase of a modern diesel trawler to investigate the commercial potentialities of trawling in the Great Australian Bight; a survey of the prawn resources off the east coast of Australia; a survey of the pilchard resources off the New South Wales coast; barracouta survey in Bass Strait; crayfish survey off the south coast of Western Australia.

5. North Australia Development Committee.—In 1946, the North Australia Development Committee recommended that a hydrological and oceanographical survey should be made of North Australian waters. It also suggested that a biological survey should be made of the pearl oyster with particular reference to the possibility of instituting pearl culture.

Further reference to these and other recommendations is given in Official Year Book No. 41, page 848.

The C.S.I.R.O. Division of Fisheries and Oceanography subsequently set up a biological research station on Thursday Island, mainly for the pearl and pearl-shell investigations. Since 1951, a research vessel has been based on Thursday Island and is used for diving, biological and hydrological work.

§ 10. Oversea Trade in Products of Fishing and Whaling.

1. Imports of Fish.—The value of edible fish and fish products imported in 1959–60 amounted to £8,047,000 compared with £6,140,000 in 1958–59.

In 1959–60, the live weight equivalent of fresh and processed fish imported was estimated to be in the ratio of approximately 70 per cent. to the total Australian catch of fish, crustaceans and molluscs, the imports of canned fish being more than double the output of local factories. Of the total quantity of 35.5 million lb. of fresh and frozen fish imported in 1959–60, South Africa contributed 12.1 million lb., United Kingdom 8.1 million lb., New Zealand 7.2 million lb., and Denmark 3.4 million lb. A quantity of 20.4 million lb. of canned fish and fish products was imported in 1959–60, and of this 7.5 million lb. originated in Japan, 4.9 million lb. in the United Kingdom and 3.4 million lb. in Norway. Particulars of the imports of fish and edible fisheries products are shown below for the years 1957–58 to 1959–60.

IMPORTS OF FISH, CRUSTACEANS AND MOLLUSCS: AUSTRALIA.

Classification.	Quantity ('000 lb.).			Value (£A.'000 f.o.b. Port of Shipment).		
	1957-58.	1958-59.	1959-60.	1957-58.	1958-59.	1959-60.
Fresh or Frozen(a)	23,163	24,618	35,461	2,163	2,405	3,335
Smoked or Dried	9,698	6,284	9,206	648	491	704
Potted or Concentrated(b) ..	148	117	175	42	34	54
Canned—						
Herrings	4,581	4,008	5,237	480	443	586
Salmon	6,761	7,407	8,129	1,460	1,518	1,903
Sardines and Pilchards ..	4,381	4,456	6,148	826	829	1,058
Tuna	61	62	56	10	12	9
Other Fish	727	269	310	100	66	71
Crustaceans	496	449	354	191	171	130
Molluscs	110	145	179	27	23	40
<i>Total Canned</i>	<i>17,117</i>	<i>16,796</i>	<i>20,413</i>	<i>3,094</i>	<i>3,062</i>	<i>3,797</i>
Fisheries Products, not elsewhere included .. ..	..	..	..	198	148	157
Total Fisheries Products ..	..	..	..	6,145	6,140	8,047

(a) Excludes frozen smoked which is included with "Smoked or Dried".

(b) Includes extracts and caviare.

2. Exports of Fish.—In 1959-60, exports of items other than crayfish tails remained at the low levels of earlier years, but crayfish tails increased in importance, their value representing nearly 91 per cent. of the total value of fish, etc., exports. Nearly all of this was exported to the United States of America.

The following table shows details of the total exports of edible fisheries products (including those produced in other countries) from Australia for the years 1957-58 to 1959-60:—

EXPORTS OF FISH, CRUSTACEANS AND MOLLUSCS: AUSTRALIA.

Particulars.	Quantity ('000 lb.).			Value (£A.'000 f.o.b. Port of Shipment).		
	1957-58.	1958-59.	1959-60.	1957-58.	1958-59.	1959-60.
Fresh or Frozen(a)—						
Crayfish tails	5,802	7,281	7,777	2,489	3,202	3,810
Oysters-in-shell	13	8	5	1	1	1
Other	802	1,423	801	207	366	295
Canned—						
Salmon	56	57	39	12	8	10
Other Fish	385	417	111	74	78	17
Crustaceans	60	58	73	19	15	23
Molluscs	21	14	33	6	3	15
<i>Total Canned</i>	<i>522</i>	<i>546</i>	<i>256</i>	<i>111</i>	<i>104</i>	<i>65</i>
Fisheries Products, not elsewhere included .. ..	..	..	..	1	2	25
Total Fisheries Products ..	..	..	..	2,809	3,675	4,196

(a) Excludes frozen smoked, which is included with "Fisheries Products, not elsewhere included".

3. **Imports and Exports of Unmanufactured Shell.**—Imports of unmanufactured shell include quantities of pearl, trochus and green snail shell from New Guinea, Papua and the Pacific Islands which are subsequently re-exported from Australia.

Imports of unmanufactured shell for the three years 1957–58 to 1959–60 were, respectively, 299,000 lb. (£46,000); 227,000 lb. (£44,000); and 156,000 lb. (£18,000). Exports during the same years were:—5,627,000 lb. (£1,300,000); 4,312,000 lb. (£832,000); and 3,572,000 lb. (£752,000). Pearl and trochus shell accounted for most of this, the quantity and value exported in 1959–60 being:—pearl shell, 2,593,000 lb. (£628,000); trochus shell, 934,000 lb. (£114,000).

4. **Imports and Exports of Marine Animal Oils.**—Imports of marine animal oils during the three years 1957–58 to 1959–60 were, respectively:—487,000 gals. (£261,000); 494,000 gals. (£232,000); 588,000 gals. (£266,000). Whale oil constituted the major part of these imports.

Of the total quantity of 354,000 gals. of whale oil imported in 1959–60, 272,000 gals. originated from Norfolk Island. Imports of other marine animal oils consisted of 64,000 gals. of cod liver oil, 123,000 gals. of unrefined fish oils and 47,000 gals. of other marine animal oils.

Exports of marine animal oils during the three years 1957–58 to 1959–60, consisting almost entirely of whale oil, amounted to:—4,025,000 gals. (£1,695,000); 5,403,000 gals. (£1,156,000); 3,062,000 gals. (£900,000). Of the total exports of whale oil of 3,056,000 gals. in 1959–60 1,986,000 gals. were shipped to the Federal Republic of Germany.

CHAPTER XXVII.

MINERAL INDUSTRY.

NOTE.—Further detailed information on the subjects dealt with in this chapter is contained in the annual printed Bulletin *Primary Industries, Part II.—Non-Rural Industries and Value of Production* issued by this Bureau, and in *The Australian Mineral Industry—Annual Review* and other publications issued by the Bureau of Mineral Resources, Geology and Geophysics, which also issues, in co-operation with this Bureau, a quarterly publication *The Australian Mineral Industry*, comprising two parts—Part I.—Quarterly Review, and Part II.—Quarterly Statistics. The mimeograph statistical bulletin *Mining and Quarrying* of this Bureau contains annual statistics of the industry prepared and published as soon as possible after the data have been compiled. A monthly statistical bulletin *The Gold Mining Industry, Australia* is issued also, and other current information on mining or mine products is contained in the *Quarterly Summary of Australian Statistics*, the *Monthly Review of Business Statistics*, the *Digest of Current Economic Statistics*, and the *Monthly Bulletin of Production Statistics*.

§ 1. Introduction.

1. **Sources of Statistics.**—In the main, the data contained in this chapter consist of official statistics of the Mines Departments of the several States and of the Northern Territory Mines Branch. The particulars shown have been compiled as far as practicable on the standardized basis which has been used in Australia since 1950, and this presentation has involved some rearrangement of official statistics published by the Mines Departments in some States. These statistics have been supplemented, as necessary, by data obtained from the Statisticians of the several States, the Commonwealth Bureau of Mineral Resources, the Joint Coal Board, the Australian Mines and Metals Association (Inc.), the Mineral Resources Division of the United Kingdom Overseas Geological Surveys and from several other sources.

2. **Presentation of Mineral Statistics.**—(i) *Mineral Industry Data.* The mineral industry includes all mining and quarrying and the recovery of minerals from ore dumps, tailings, etc. Ore-dressing and elementary smelting of metallic minerals (e.g., in the case of gold) and miscellaneous treatment of non-metallic minerals, where these are carried out in an associated plant at or near the mine, are included in the mineral industry. However, establishments primarily engaged in smelting and/or refining (including the smelting and refining sections of the large plants operated at Mt. Morgan and Mt. Isa in Queensland and at Mt. Lyell in Tasmania) are omitted and classified to the manufacturing industry.

For mines and quarries which produce more than one product, it is not possible to apportion some particulars relating to the operations of the mine (employment, salaries and wages paid, and costs incurred in production) to the minerals produced. It is, therefore, the practice to record these data only as a total for each mine and then to classify each mine to the industry of the most important mineral produced. Thus a mine producing, say, both tin and tungsten minerals, would be classified as a tin mine if tin were the more important product by value, or vice versa if tungsten were the dominant product.

The mineral industries are classified into four major groups, namely, Metal Mining, Fuel Mining, Non-metal (excluding Fuel) Mining, and Construction Material Quarrying.

Mineral industry data have been obtained annually, since 1952, from the Mining and Quarrying Census. This census is carried out in collaboration with the several Mines Departments and involves the uniform collection of particulars from all establishments employing on the average four or more persons during the period worked by the mine. A representative specimen collection form is included in the Bulletin *Primary Industries, Part II.*, No. 53, 1958–59, pages 47 and 48. For smaller mines, either simplified Census returns covering number of persons employed and value of output are collected or these particulars are compiled from data made available by the Mines Departments.

Particulars of the uranium-mining industry are excluded, as are operations associated with the exploration for minerals, e.g. oil-search.

(ii) *Mineral Product Data.* In the preparation of Australian mineral production statistics, the quantities and values of individual minerals produced are reported in terms of the products in the form in which they are dispatched from the locality of each mine. For example, in the case of a metal mine, the output is recorded as ore when no treatment is undertaken at the mine, or as a concentrate where ore-dressing operations are carried out in associated works in the locality of the mine. In addition to the basic quantity data, the contents of metallic minerals and contents or average grade of selected non-metallic minerals

are reported. Whenever practicable, contents (based on assay) of metallic minerals are shown for each metal which is a "pay metal" or a "refiners' prize" when present in the particular mineral. Other metallic contents which are not recovered are excluded.

Minerals are divided into four major groups, namely, Metals, Fuels, Non-metals (excluding Fuels) and Construction Materials. In this chapter, individual mineral products are arranged in these four groups.

Particulars relating to uranium-bearing minerals are excluded.

3. Occurrences of Minerals.—The greatest part of the area of outcropping rock on the Australian continent is Precambrian in age. These basement rocks form the western and central core of the continent and are flanked by younger Palaeozoic rocks which, along the eastern edge of the continent, form a belt several hundred miles wide extending from north Queensland to Tasmania. Smaller areas of Palaeozoic rocks occur in other States. Mesozoic sediments overlies large areas of the continent and reach their greatest development in central Queensland. Cainozoic rocks occur mainly in the southern parts of Victoria and South Australia and as residual basalt cappings over an extensive area of the Palaeozoic rocks of eastern Australia.

Minerals occur widely throughout the Precambrian and Palaeozoic rocks of the continent. Palaeozoic mineralization is perhaps more varied, but the deposits now being worked are in general smaller than those found in Precambrian rocks. Most of the larger deposits of minerals now being mined in Australia are shown in the following table according to the geological era in which they were formed.

PRINCIPAL AUSTRALIAN MINERAL DEPOSITS.

Age of Geological Formation in which Located.	Metal or Mineral.	State or Territory.	Locality.
Precambrian (more than 520 million years old)	Copper ..	Queensland ..	Mt. Isa
	Gold ..	Northern Territory ..	Tennant Creek
		Western Australia ..	Kalgoorlie and other localities
	Iron ..	South Australia ..	Middleback Ranges
		Western Australia ..	Yampi Sound
	Lead-Silver-Zinc	New South Wales ..	Broken Hill
Palaeozoic (between 200 and 520 million years old)		Queensland ..	Mt. Isa
	Uranium ..	Queensland ..	Mary Kathleen
		South Australia ..	Radium Hill
		Northern Territory ..	Rum Jungle and South Alligator River Area
	Black Coal ..	New South Wales ..	Hunter Valley, Lithgow, South Coast
		Queensland ..	Baralaba, Blair Athol, etc.
		Western Australia ..	Collie
	Copper-Gold ..	Queensland ..	Mt. Morgan
		Tasmania ..	Mt. Lyell
	Lead-Silver-Zinc	New South Wales ..	Captain's Flat
		Tasmania ..	Mt. Read and Rosebery
	Tin (lode) ..	Queensland ..	Herberton
Mesozoic (between 75 and 200 million years old)		Tasmania ..	North-east of State
	Tungsten ..	Tasmania ..	King Island and North-east of State
	Black Coal ..	Queensland ..	Ipswich
		South Australia ..	Leigh Creek
		Tasmania ..	St. Marys
Cainozoic (less than 75 million years old)	Mineral Sands(a)	New South Wales ..	North Coast
		Queensland ..	South Coast
	Brown Coal ..	Victoria ..	Gippsland
	Tin (alluvial) ..	New South Wales ..	Tingha
		Queensland ..	Herberton
		Tasmania ..	North-east of State

(a) The deposition of mineral sands, derived from Palaeozoic granites, continued throughout the Cainozoic Era.

The large bauxite (aluminium) deposits of Cape York Peninsula in Queensland, for which an extensive mining programme is planned, were formed during the early part of the Cainozoic Era as a result of climatic conditions then prevailing.

Of the non-metallic minerals, many, such as clay, sand and silica, etc., are not restricted to the rocks of any particular era. However, Precambrian rocks do contain important deposits of asbestos in Western Australia, limestone and dolomite in South Australia, and mica in the Northern Territory. All crude salt is produced by the evaporation of water from pans constructed along the sea coast or from inland lakes.

4. Mineral Concentrates.—Concentration is a physical process involving the removal of mineral impurity from the ore. Most mines now dispatch ore in concentrate form as this considerably reduces the transport costs and produces a saleable product in the form required by smelters. Most concentrates are nearly pure mineral and the ore-dressing processes (with the exception of that for uranium) involve no chemical change to the mineral being won. Various methods are used in concentration. Sulphide ores which now comprise the greatest tonnages treated are, in most instances, separated from the gangue by flotation. In this method of concentration, the ore is ground finely enough to liberate the individual mineral particles, aerated, and agitated in tanks of water to which chemicals have been added. Under certain conditions, particles of one sulphide mineral adhere to the froth bubbles and are collected in the froth overflow, while gangue and even other sulphides are depressed. By treating the tailings of one flotation process with different chemicals and conditions, it is often possible to separate a further concentrate, as is done at Broken Hill where the zinc sulphide is recovered from the tailings of the lead sulphide concentration process. Differential flotation is most extensively developed at Captain's Flat, in New South Wales, where successive concentrates of copper, lead, zinc and pyrite are obtained from a lead-silver-zinc-copper ore.

Other methods of concentration used are gravity (alluvial tin, mineral sands, some lead-zinc ores), electromagnetic (wolfram, scheelite, glauconite and mineral sands) and electrostatic (mineral sands).

Particulars of an average Broken Hill ore mined during 1959, showing metal contents before and after differential flotation, are shown in the following table. It should be noted that in both the ore and the concentrate, lead and zinc are contained as the minerals lead sulphide and zinc sulphide respectively. Most of the silver is contained in minerals which are collected with the lead sulphide.

ORE TREATED AND CONCENTRATES PRODUCED BY DIFFERENTIAL FLOTATION AT BROKEN HILL (a), 1959.

Particulars.	Quantity.	Proportion of weight of ore mined.	Average Assays.			Proportion of Metal Distribution.		
			Lead.	Silver.	Zinc.	Lead.	Silver.	Zinc.
	tons.	%	%	f. oz.	%	%	%	%
Ore treated ..	1,869,528	100.0	13.0	4.5	11.2	100.0	100.0	100.0
Lead Concentrate	308,519	16.5	75.5	25.3	4.1	95.9	92.8	6.1
Zinc Concentrate	358,036	19.2	0.9	0.8	52.0	1.3	3.5	88.8
Residues(b) ..	1,202,973	64.3	0.6	0.3	0.9	2.8	3.7	5.1

(a) Average particulars for the five operating companies. (b) These are of no economic use at present and are either pumped as filling for underground workings or otherwise discarded.

§ 2. The Mineral Industry.

1. Persons Engaged.—In the following table, which shows particulars collected in the Population Censuses of Australia at 30th June, 1947 and 1954, the numbers of persons whose "industry" was stated to be "mining and quarrying" are shown together with the numbers engaged in all primary industries and the total work force.

PERSONS ENGAGED, AUSTRALIA.

Particulars.	At 30th June—	
	1947.	1954.
Persons Engaged in—		
Mining and Quarrying No.	57,574	62,107
All Primary Industries No.	563,697	560,100
Total Work Force No.	3,196,431	3,702,022
Persons Engaged in Mining and Quarrying as a proportion of—		
All Primary Industries %	10.2	11.1
Total Work Force %	1.8	1.7

Corresponding details from the 1961 Population Census are not yet available.

Particulars of the numbers of persons engaged in the various mining and quarrying industries, as collected in the Annual Mining and Quarrying Census, are included in paras. 4 (ii) and (iii), pages 1039–40.

2. **Size Classification of Mines and Quarries.**—Most of the mines and quarries worked during 1959 employed less than four persons, including working proprietors. However, more than half of the persons engaged in mining and quarrying were in the 55 mines each employing 200 persons or more. The following table shows the total number of mines grouped according to sizes in accordance with the average number of persons employed during the period worked by each mine in 1959. The details of persons employed are not directly comparable with the Population Census figures shown in the preceding table. For particulars of the method of compiling these industry statistics, *see* para. 2 (i), page 1033.

MINING AND QUARRYING: SIZE CLASSIFICATION OF ESTABLISHMENTS, 1959.

Mines and Quarries employing on the average(a)—	N.S.W.	Vic. (b)	Q'land.	S.A.	W.A.	Tas.	N.T.	Aust. (b) (c)
Less than 4 persons—								
Establishments ..	570	65	285	330	261	75	37	1,628
Persons ..	1,015	129	447	537	748	139	75	3,095
From 4 to 20 persons—								
Establishments ..	163	105	90	93	80	38	12	582
Persons ..	1,314	949	882	773	652	285	114	4,975
From 21 to 200 persons—								
Establishments ..	91	33	71	12	29	15	1	253
Persons ..	6,734	1,523	(d)	(d)	1,794	727	94	14,755
More than 200 persons—								
Establishments ..	32	3	4	2	10	3	1	55
Persons ..	13,600	1,556	(d)	(d)	5,176	1,675	235	26,877
Total—								
Establishments ..	856	206	450	437	380	131	51	2,518
Persons ..	22,663	4,157	8,705	2,422	8,370	2,826	518	49,702

(a) Average during period worked. Includes working proprietors. producers in Victoria for which employment figures are not available.

(b) Excludes 13 salt
(c) Includes Australian

(d) Not available for publication; included in totals.

3. **Value of Production.**—(i) *General.* In 1959, the local value of mining and quarrying in Australia (the value of output, or the selling value of mine and quarry products at the mine or quarry) was £164,985,000, or 11.6 per cent. of the production of all primary industries. The most important State was New South Wales with £71,090,000, followed by Queensland with £33,329,000 and Western Australia with £21,787,000.

(ii) *Local and Net Values of Production, 1959.* Local and net values of mining and quarrying production for each State are shown for 1959 in the following table. A more detailed reference to the value of production of mining and quarrying and other industries in Australia as well as a brief explanation of the terms used will be found in Chapter XXX.—Miscellaneous.

MINING AND QUARRYING: LOCAL AND NET VALUES OF PRODUCTION, 1959.
(£'000.)

State or Territory.	Local Value (Value of Output at Mine or Quarry).	Cost of Power, Fuel, Light and Other Materials and Stores Used.	Net Value. (a)
New South Wales	71,090	14,759	56,331
Victoria	14,935	2,834	12,101
Queensland	33,329	8,848	24,481
South Australia	13,209	2,511	10,698
Western Australia	21,787	7,022	14,765
Tasmania	7,639	2,241	5,398
Northern Territory	2,727	525	2,202
Australian Capital Territory	269	90	179
Australia	164,985	38,830	126,155

(a) Local value less cost of power, fuel, light and other materials and stores used; depreciation and maintenance costs have not been deducted.

(iii) *Local Values, 1955 to 1959.* In the following table, the local values of mining and quarrying production are shown by States and Territories for the years 1955 to 1959:—

MINING AND QUARRYING: LOCAL VALUE OF PRODUCTION.(a)
(£'000.)

Year.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1955 ..	84,244	10,917	26,892	10,512	19,746	10,744	1,691	125	164,871
1956 ..	88,790	11,891	30,204	11,910	20,230	10,555	2,594	146	176,320
1957 ..	83,170	12,728	25,576	11,872	20,979	8,421	2,195	170	165,111
1958 ..	71,414	13,694	27,632	12,308	20,777	7,358	2,564	208	155,955
1959 ..	71,090	14,935	33,329	13,209	21,787	7,639	2,727	269	164,985

(a) Value of output or selling value of products at the mine or quarry.

(iv) *Net Values of Production, 1955 to 1959.* In the following table, the net value of production of mining and quarrying products and the value per head of population are shown by States and Territories for the years 1955 to 1959.

MINING AND QUARRYING: NET VALUE OF PRODUCTION.(a)

Year.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
NET VALUE OF PRODUCTION.(a) (£'000.)									
1955	69,262	8,869	21,732	8,452	14,143	8,612	1,377	63	132,510
1956	72,053	9,457	24,148	9,487	14,350	8,298	2,084	105	139,982
1957	66,091	9,944	18,810	9,320	14,889	5,897	1,741	110	126,802
1958	55,801	10,987	19,796	9,999	14,454	5,168	1,997	134	118,336
1959	56,331	12,101	24,481	10,698	14,765	5,398	2,202	179	126,155
NET VALUE OF PRODUCTION(a) PER HEAD OF POPULATION. (£.)									
1955	19.8	3.5	16.2	10.3	21.4	27.2	80.8	1.9	14.4
1956	20.3	3.6	17.7	11.2	21.2	25.8	116.4	3.0	14.8
1957	18.2	3.6	13.5	10.7	21.5	17.9	93.0	2.9	13.2
1958	15.1	4.0	14.0	11.1	20.5	15.3	103.9	3.3	12.0
1959	15.0	4.3	17.0	11.6	20.5	15.7	107.5	3.8	12.5

(a) Local value, or value of output, less cost of power, fuel, light and other materials and stores used; depreciation and maintenance costs have not been deducted.

4. Statistics of the Principal Mining and Quarrying Industries.—(i) *Summary, 1959.* In the next table, statistics of numbers of mines and quarries, persons employed, local and net value of production and other particulars are shown for the major industry groups for the year 1959. For particulars of the method of compiling these industry statistics, see para. 2 (i), page 1033.

MINING AND QUARRYING: SUMMARY OF OPERATIONS, INDUSTRY GROUPS, AUSTRALIA, 1959.

Industry Group.	Mines and Quarries.	Persons Employed. (a)	Salaries and Wages Paid. (b)(c)	Local Value of Production. (d)	Total Fuel, Materials, etc., Used.	Net Value of Production. (e)	Value of Additions and Replacements to Fixed Assets.(b)
	No.	No.	£'000.	£'000.	£'000.	£'000.	£'000.
Metal Mining ..	756	20,256	26,218	77,522	21,545	55,977	10,229
Fuel Mining ..	226	20,197	25,147	55,334	10,759	44,575	11,361
Non-metal (excluding Fuel) Mining(f) ..	687	2,975	2,631	10,555	2,359	8,196	1,454
<i>Total, All Mining ..</i>	<i>1,669</i>	<i>43,428</i>	<i>53,996</i>	<i>143,411</i>	<i>34,663</i>	<i>108,748</i>	<i>23,044</i>
Construction Material Quarrying(g) ..	862	4,116	3,490	21,574	4,167	17,407	1,408
Total All Mining and Quarrying	2,531	47,544	57,486	164,985	38,830	126,155	24,452

(a) Average number employed (including working proprietors) during whole year. (b) Excludes mines and quarries employing less than four persons. (c) Excludes drawings by working proprietors; he amounts are net after deducting value of explosives sold to employees. (d) Value of output or selling value of products at mine or quarry. (e) Local value less cost of power, fuel, light and other materials and stores used; depreciation and maintenance costs have not been deducted. (f) Incomplete for some industries outside the normal administrative control of State Mines Departments (e.g., clays and salt). (g) Incomplete owing to difficulties of coverage.

In the next table, statistics of numbers of mines and quarries, persons employed, local and net value of production are shown for each State, the Northern Territory, and the Australian Capital Territory for the year 1959:—

MINING AND QUARRYING: SUMMARY OF OPERATIONS, 1959.

State or Territory.	Mines and Quarries.	Persons Employed. (a)	Salaries and Wages Paid. (b)(c)	Local Value of Production. (d)	Total Fuel, Materials, etc., Used.	Net Value of Production. (e)	Value of Additions and Replacements to Fixed Assets. (b)
	No.	No.	£'000.	£'000.	£'000.	£'000.	£'000.
New South Wales ..	856	21,998	27,084	71,090	14,759	56,331	8,091
Victoria ..	219	3,507	4,558	14,935	2,834	12,101	4,539
Queensland ..	450	8,434	11,044	33,329	8,848	24,481	7,095
South Australia ..	437	2,243	1,917	13,209	2,511	10,698	1,039
Western Australia ..	380	8,105	8,845	21,787	7,022	14,765	2,695
Tasmania ..	131	2,724	3,276	7,639	2,241	5,398	521
Northern Territory ..	51	492	723	2,727	525	2,202	471
Aust. Cap. Territory ..	7	41	39	269	90	179	1
Australia ..	2,531	47,544	57,486	164,985	38,830	126,155	24,452

(a) Average number employed (including working proprietors) during whole year. (b) Excludes mines and quarries employing less than four persons. (c) Excludes drawings by working proprietors; the amounts are net after deducting value of explosives sold to employees. (d) Value of output or selling value of products at mine or quarry. (e) Local value less cost of power, fuel, light and other materials and stores used; depreciation and maintenance costs have not been deducted.

(ii) *Employment in Mining and Quarrying, 1959.* The following table shows the average numbers engaged in the various mining industries in each State or Territory in 1959.

MINING AND QUARRYING: EMPLOYMENT(a), 1959.

Industry.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Metal Mining—									
Gold Mining ..	8	244	131	6	5,404		155	..	5,948
Lead-Silver-Zinc Mining ..	5,601	..	(b)	(b)	47	(b)	..	..	9,031
Copper-Gold Mining ..	29	(b)	(b)	7	202	(b)	240	..	2,301
Tin Mining ..	126	..	283	..	43	454	20	..	926
Mineral Sands Mining ..	601	..	326	..	92	..	..	..	1,019
Other Metal Mining ..	74	(b)	32	(b)	369	(b)	12	..	1,031
Total, Metal Mining	6,439	258	(b)	(b)	6,157	2,097	427	..	20,256
Fuel Mining—									
Black Coal Mining—									
Underground ..	13,296	401	(b)	..	(b)	(c) 314	..	..	c 18,094
Opencut ..	149	..	(b)	251	(b)	..	..	..	584
Total ..	13,445	401	3,172	251	1,095	314	..	..	18,678
Brown Coal Mining ..	..	1,519	..	..	..	..	..	..	1,519
Total, Fuel Mining	13,445	1,920	3,172	251	1,095	314	..	..	20,197
Non-metal (excluding Fuel) Mining(d) ..	1,042	283	(b)	(b)	565	137	26	(e)	2,975
Total, All Mining	20,926	2,461	7,892	1,331	7,817	2,548	453	(e)	43,428
Construction Material Quarrying(f) ..	1,072	1,046	542	912	288	176	39	41	4,116
Total, All Mining and Quarrying ..	21,998	3,507	8,434	2,243	8,105	2,724	492	41	47,544

(a) Average employment during whole year, including working proprietors. (b) Not available for publication. (c) Includes persons engaged by one mine which has both underground and opencut workings. (d) Incomplete for some industries outside the normal administrative control of State Mines Departments (e.g. clays and salt). (e) Not available for publication; included with "Construction Material Quarrying". (f) Incomplete owing to difficulties of coverage.

(iii) *Employment in Mining and Quarrying, 1955 to 1959.* The following table shows particulars of mining employment in Australia for the years 1955 to 1959. The figures show the average number of persons employed during the whole year.

MINING AND QUARRYING: EMPLOYMENT(a), AUSTRALIA.

Industry.	1955.	1956.	1957.	1958.	1959.
<i>Metal Mining—</i>					
Gold Mining	6,753	6,488	6,205	5,901	5,948
Lead-Silver-Zinc Mining	10,076	10,627	10,354	9,461	9,031
Copper-Gold Mining	2,127	2,301	2,151	2,057	2,301
Tin Mining	937	938	856	944	926
Mineral Sands Mining	891	1,592	2,062	1,102	1,019
Other Metal Mining	1,273	1,407	1,300	1,030	1,031
<i>Total, Metal Mining</i>	<i>22,057</i>	<i>23,353</i>	<i>22,928</i>	<i>20,495</i>	<i>20,256</i>
<i>Fuel Mining—</i>					
Black Coal Mining	25,660	23,895	22,345	20,795	18,678
Brown Coal Mining	1,502	1,566	1,579	1,540	1,519
<i>Total, Fuel Mining</i>	<i>27,162</i>	<i>25,461</i>	<i>23,924</i>	<i>22,335</i>	<i>20,197</i>
<i>Non-metal (excluding Fuel) Mining(b)</i>	<i>2,678</i>	<i>2,708</i>	<i>2,749</i>	<i>2,728</i>	<i>2,975</i>
<i>Total, All Mining</i>	<i>51,897</i>	<i>51,522</i>	<i>49,601</i>	<i>45,558</i>	<i>43,428</i>
<i>Construction Material Quarrying(b)</i>	<i>4,197</i>	<i>4,329</i>	<i>4,640</i>	<i>4,581</i>	<i>4,116</i>
Total, All Mining and Quarrying ..	56,094	55,851	54,241	50,139	47,544

(a) Average employment during whole year, including working proprietors.

(b) Incomplete.

(iv) *Salaries and Wages Paid in Mining, 1955 to 1959.* Salaries and wages paid in the mining and quarrying industries in Australia during each year 1955 to 1959 are shown in the following table. Information regarding rates of wages paid in the mining industry is shown in Chapter XII.—Labour, Wages and Prices (p. 426) and also in the *Labour Report*.

MINING AND QUARRYING: SALARIES AND WAGES PAID(a), AUSTRALIA.

(£'000.)

Industry.	1955.	1956.	1957.	1958.	1959.
<i>Metal Mining—</i>					
Gold Mining	6,344	6,551	6,422	6,492	6,504
Lead-Silver-Zinc Mining	15,154	17,299	16,241	13,462	13,944
Copper-Gold Mining	1,867	2,114	2,289	2,362	2,710
Tin Mining	734	733	753	737	814
Mineral Sands Mining	819	1,644	2,177	1,327	1,188
Other Metal Mining	1,328	1,504	1,402	1,108	1,058
<i>Total, Metal Mining</i>	<i>26,246</i>	<i>29,845</i>	<i>29,284</i>	<i>25,488</i>	<i>26,218</i>
<i>Fuel Mining—</i>					
Black Coal Mining	26,065	25,862	25,105	24,501	23,437
Brown Coal Mining	1,761	1,649	1,640	1,694	1,710
<i>Total, Fuel Mining</i>	<i>27,826</i>	<i>27,511</i>	<i>26,745</i>	<i>26,195</i>	<i>25,147</i>
<i>Non-metal (excluding Fuel) Mining(b)</i>	<i>2,105</i>	<i>2,300</i>	<i>2,400</i>	<i>2,384</i>	<i>2,631</i>
<i>Total, All Mining</i>	<i>56,177</i>	<i>59,656</i>	<i>58,429</i>	<i>54,067</i>	<i>53,996</i>
<i>Construction Material Quarrying(b)</i>	<i>2,439</i>	<i>2,738</i>	<i>3,219</i>	<i>3,241</i>	<i>3,490</i>
Total, All Mining and Quarrying ..	58,616	62,394	61,648	57,308	57,486

(a) Excludes mines and quarries employing less than four persons, and drawings by working proprietors; the amounts are net after deducting value of explosives sold to employees. (b) Incomplete.

(v) *Accidents in Mining.* Particulars of numbers of persons killed and injured in accidents in mines and associated treatment plants are recorded by State Mines Departments. Numbers injured are not reported on a uniform basis in all States, as varying criteria are used in determining what constitutes injury for the purpose of these records. In 1959, 29 persons were recorded as having been killed and 1,565 as having been injured in mining (excluding quarrying) accidents. Recorded deaths and injuries in that year were highest in black coal mines (13 and 444, respectively), lead-silver-zinc mines (8 and 434) and gold mines (3 and 406).

(vi) *Local and Net Values of Mining and Quarrying Production, 1959.* The following two tables show particulars of the local and net value of production for individual mining and quarrying industries and for all mining and quarrying for the year 1959. It should be noted that these statistics are on an industry basis and not by product. For particulars of the method of compiling these industry statistics see para. 2 (i), page 1033.

MINING AND QUARRYING: LOCAL VALUE OF PRODUCTION(a), 1959.

(£'000.)

Industry.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
<i>Metal Mining—</i>									
Gold Mining	7	585	272	(b)	14,153	..	901	..	15,918
Lead-Silver-Zinc Mining ..	20,947	..	(c)	1	82	(c)	..	..	40,294
Cooper-Gold Mining	25	(c)	(c)	4	322	(c)	1,455	..	7,546
Tin Mining	151	..	959	..	152	906	7	..	2,175
Mineral Sands Mining ..	2,453	..	2,362	..	317	..	..	..	5,132
Other Metal Mining ..	148	(c)	113	4,340	1,499	(c)	43	..	6,457
<i>Total, Metal Mining</i>	<i>23,731</i>	<i>616</i>	<i>23,784</i>	<i>4,345</i>	<i>16,525</i>	<i>6,115</i>	<i>2,406</i>	<i>..</i>	<i>77,522</i>
<i>Fuel Mining—</i>									
Black Coal Mining ..	37,437	455	7,354	946	2,357	662	..	..	49,211
Brown Coal Mining ..	..	6,123	..	..	..	..	..	..	6,123
<i>Total, Fuel Mining ..</i>	<i>37,437</i>	<i>6,578</i>	<i>7,354</i>	<i>946</i>	<i>2,357</i>	<i>662</i>	<i>..</i>	<i>..</i>	<i>55,334</i>
<i>Non-metal (excluding Fuel)</i>									
<i>Mining—</i>									
Clays(d)	1,003	1,144	99	351	197	84	..	(e)	2,878
Gypsum	206	53	..	348	33	..	..	..	640
Limestone	953	589	(c)	812	(c)	224	..	..	3,145
Salt .. ..	..	108	(c)	716	(c)	..	20	..	1,023
Other Non-metal (excluding Fuel) Mining	642	5	20	695	1,447	15	45	..	2,869
<i>Total, Non-metal (excluding Fuel) Mining ..</i>	<i>2,804</i>	<i>1,899</i>	<i>718</i>	<i>2,922</i>	<i>1,824</i>	<i>323</i>	<i>65</i>	<i>(e)</i>	<i>10,555</i>
<i>Total, All Mining ..</i>	<i>63,972</i>	<i>9,093</i>	<i>31,856</i>	<i>8,213</i>	<i>20,706</i>	<i>7,100</i>	<i>2,471</i>	<i>(e)</i>	<i>143,411</i>
<i>Construction Material Quarrying(d) ..</i>	<i>7,118</i>	<i>5,842</i>	<i>1,473</i>	<i>4,996</i>	<i>1,081</i>	<i>539</i>	<i>256</i>	<i>269</i>	<i>21,574</i>
<i>Total, All Mining and Quarrying ..</i>	<i>71,090</i>	<i>14,935</i>	<i>33,329</i>	<i>13,209</i>	<i>21,787</i>	<i>7,639</i>	<i>2,727</i>	<i>269</i>	<i>164,985</i>

(a) Value of output or selling value of products at the mine or quarry.

(b) Less than £500.

(c) Not available for publication.

(d) Incomplete.

(e) Not available for publication; included with "Construction Material Quarrying".

MINING AND QUARRYING: NET VALUE OF PRODUCTION(a), 1959.
(£'000.)

Industry.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Metal Mining—									
Gold Mining ..	6	441	214	(b)	9,400	..	788	..	10,849
Lead-Silver-Zinc Mining ..	15,564	..	(c)	(c)	66	(c)	..	..	29,927
Copper-Gold Mining ..	(d)—9	(c)	(c)	3	145	(c)	1,141	..	4,221
Tin Mining ..	133	..	714	..	83	728	5	..	1,663
Mineral Sands Mining ..	1,829	..	1,739	..	216	..	..	..	3,784
Other Metal Mining ..	129	(c)	107	(c)	1,141	(c)	34	..	5,533
Total, Metal Mining	17,652	471	(c)	(e)	11,051	4,161	1,968	..	55,977
Fuel Mining—									
Black Coal Mining ..	29,447	336	6,186	770	1,765	541	..	..	39,045
Brown Coal Mining ..	..	5,530	..	..	..	..	..	..	5,530
Total, Fuel Mining ..	29,447	5,866	6,186	770	1,765	541	..	..	44,575
Non-metal (excluding Fuel) Mining—									
Clays(e) ..	793	1,083	(f) 99	324	104	77	..	(g)	(h)2,480
Gypsum ..	165	43	..	275	28	..	..	..	511
Limestone ..	635	320	(c)	692	(c)	161	..	..	2,176
Salt ..	..	(f) 108	(c)	563	(c)	..	(f) 20	..	(h) 831
Other Non-metal (excluding Fuel) Mining ..	521	(f) 5	(f) 20	(c)	(c)	13	43	..	(h)2,198
Total, Non-metal (excluding Fuel) Mining ..	2,114	1,559	(c)	(c)	1,206	251	63	(g)	8,196
Total, All Mining ..	49,213	7,896	23,508	7,125	14,022	4,953	2,031	(g)	108,748
Construction Material Quarrying(e) ..	(f)7,118	4,205	973	3,573	743	445	171	179	h 17,407
Total, All Mining and Quarrying ..	56,331	12,101	24,481	10,698	14,765	5,398	2,202	179	126,155

(a) Local value (i.e., value of output at mine) less cost of power, fuel, light and other materials and stores used; depreciation and maintenance costs have not been deducted. (b) Less than £500. (c) Not available for publication. (d) Cost of materials used, etc., exceeds value of output. (e) Incomplete. (f) No allowance has been made for costs of power, fuel, light and other materials and stores used, particulars for which are not available. (g) Not available for publication; included with "Construction Material Quarrying". (h) For this industry, refer to footnote (f) for the States concerned.

§ 3. Mineral Production.

1. Quantity of Principal Minerals Produced in 1959.—In the following table, particulars of the quantity of the principal minerals produced during 1959 are shown for each State and the Northern Territory:—

QUANTITY OF PRINCIPAL MINERALS PRODUCED, 1959.

Mineral.	Unit.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	Aust. (a)
METALLIC MINERALS.									
Antimony Ore and Concentrate ..	ton	1,021	1	..	..	..	..	..	1,022
Bauxite ..	..	4,244	3,464	..	..	7,277	..	..	14,985
Beryllium Ore ..	..	48	..	1	1	267	..	..	317
Chromite ..	..	..	120	..	..	..	..	..	120
Copper Ore(b) ..	..	58	120	65,505	(c) 160	11,859	..	36	77,738
Copper Concentrate ..	..	4,843	263,815	..	..	4,409	50,144	35,563	358,774
Copper Precipitate ..	..	124	..	29	..	..	25	1,201	1,379
Gold Concentrate ..	..	..	1,487	..	..	..	..	..	1,487
Gold—Other Forms(d) ..	oz.	515	36,486	(e)	(e)	(e)	(e)	(e)	(e)
Ilmenite Concentrate ..	ton	230	..	..	..	83,347	..	..	83,577
Iron Ore(f) ..	'000 tons	181	..	12,468	(c) 44	727	..	..	4,141
Lead Ore(g) ..	ton	..	..	120,091	..	1,903	15,428	..	12,693
Lead Concentrate ..	..	323,633	..	..	..	..	6,010	..	461,055
Lead-Copper Concentrate ..	..	..	..	..	..	..	..	..	6,010
Manganese Ore ..	..	2,578	..	9,666	..	75,733	..	1,994	89,971
Pyrite Concentrate ..	..	34,550	..	17,410	57,534	53,030	60,480	..	223,004
Rutile Concentrate ..	..	46,283	..	35,522	..	100	..	..	81,905
Tantalite-Columbite Concentrate ..	lb.	..	..	..	..	18,950	..	..	18,950
Tin Concentrate ..	ton	240	..	1,547	..	250	1,252	15	3,304
Tungsten Concentrates—	..	..	..	..	..	..	..	..	..
Scheelite Concentrate ..	..	1	..	..	..	..	..	..	1
Wolfram Concentrate ..	..	..	..	..	..	..	891	12	903
Zinc Concentrate ..	..	387,452	..	26,619	..	..	59,205	..	473,276
Zircon Concentrate ..	..	71,777	..	34,792	..	6,787	..	..	113,536

NOTE.—See next page for footnotes.

QUANTITY OF PRINCIPAL MINERALS PRODUCED, 1959—*continued*.

Mineral.	Unit.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	Aust. (a)
FUEL MINERALS.									
Coal, Black—									
Semi-anthracite ..	'000 tons	..	..	52	..	..	2	..	54
Bituminous ..	"	15,712	90	2,477	..	..	297	..	18,576
Sub-bituminous ..	"	..	..	66	690	912	..	..	1,668
Total ..	"	15,712	90	2,595	690	912	299	..	20,298
Coal, Brown (Lignite) ..	"	..	13,035	..	..	..	..	..	13,035

NON-METALLIC (EXCLUDING FUEL) MINERALS.

Asbestos ..	short ton	726	..	..	..	17,149	..	..	17,875
Barite ..	ton	60	..	..	6,145	..	9	..	6,214
Clays—									
Brick Clay and Shale...	'000 tons	1,894	(c) 1,122	290	441	(c) 398	154	..	4,299
Other(h) ..	"	441	196	9	92	50	35	..	823
Diatomite ..	ton	4,409	680	..	..	..	..	..	5,089
Dolomite(i) ..	"	3,776	..	2,000	151,401	..	2,907	..	160,084
Felspar ..	"	4,700	..	..	654	1,396	..	..	6,750
Gypsum ..	"	101,143	81,101	..	296,816	37,731	..	..	516,791
Limestone(i) ..	'000 tons	2,056	1,120	(j)	1,017	(j)	230	..	5,305
Magnesite ..	ton	59,777	..	..	790	19	..	..	60,586
Mica—Muscovite, trimmed	lb.	..	..	..	..	..	..	33,665	33,665
Salt, Crude ..	ton	..	70,135	(j)	357,802	(j)	..	1,221	467,532
Silica (Glass, Chemical, etc.)(h) ..	"	125,918	..	1,594	13,607	7,140	6,519	..	154,778
Talc ..	"	1,089	..	..	11,239	4,048	..	..	16,376

CONSTRUCTION MATERIALS.(k)

Sand ..	'000 tons	2,145	1,158	(l)	1,307	(l)	9	4	4,623
River Gravel and Gravel	"	..	..	..	..	..	..	..	..
Boulders ..	"	1,408	143	(l)	559	(l)	382	32	2,524
Dimension Stone ..	"	157	4	6	44	72	(m)	(m)	283
Crushed and Broken Stone	"	2,441	6,566	2,358	6,986	928	432	111	19,822
Other (Decomposed Rock, etc.) ..	"	13,034	651	(l)	(l)	(l)	11	3	13,699

(a) Excludes Australian Capital Territory where production is confined to brick clay mining and construction material quarrying. (b) Includes cupreous ore for fertilizer. (c) Estimated.
 (d) Bullion, alluvial, retorted gold, etc. (e) Gross weight not available. (f) Iron oxide for metal extraction. (g) Includes lead-silver ore. (h) Incomplete; figures relate only to production reported by Mines Departments. (i) Excludes quantities used directly as a building or road material. (j) Not available for publication. (k) Incomplete owing to difficulties of coverage. (l) Not available.
 (m) Less than 500 tons.

NOTE.—Particulars of uranium concentrate produced are not available for publication and have been excluded from the table above.

2. Quantities of Principal Minerals Produced, Australia.—The following table shows the quantities of the principal minerals produced in Australia during the years 1955 to 1959.

QUANTITIES OF PRINCIPAL MINERALS PRODUCED: AUSTRALIA.(a)

Mineral.	Unit.	1955.	1956.	1957.	1958.	1959.
METALLIC MINERALS.						
Antimony Ore and Concentrate	ton	650	547	852	1,116	1,022
Bauxite	"	7,563	10,329	7,707	6,909	14,985
Beryllium Ore	"	206	318	395	247	317
Chromite	"	..	6,096	3,049	776	120
Copper Ore(b)	"	47,381	47,209	56,447	58,109	77,738
Copper Concentrate	"	192,770	205,304	222,168	279,976	358,774
Copper Precipitate	"	182	134	557	1,536	1,379
Gold Concentrate	"	(c)171	107	(c)959	1,855	1,487
Gold—Other Forms(d)	oz.	(e)	(e)	(e)	(e)	(e)
Ilmenite Concentrate	ton	535	4,274	71,155	69,948	83,577
Iron Ore(f)	'000 tons	3,562	3,914	3,801	3,917	4,141
Lead Ore(g)	ton	23,483	20,121	20,758	21,854	12,693
Lead Concentrate	"	484,941	475,731	497,404	492,908	461,055
Lead-Copper Concentrate	"	5,878	6,315	7,366	7,630	6,010
Manganese Ore	"	47,356	59,384	77,010	59,683	89,971
Pyrite Concentrate	"	217,621	171,859	229,125	226,744	223,004
Rutile Concentrate	"	59,613	96,816	128,903	83,328	81,905
Tantalite-Columbite Concentrate	lb.	27,139	159,655	50,038	13,507	18,950
Tin Concentrate	ton	2,890	2,926	2,867	3,128	3,304
Tungsten Concentrates—						
Scheelite Concentrate	"	1,449	1,495	1,449	733	1
Wolfram Concentrate	"	788	877	656	517	903
Zinc Concentrate	"	492,549	530,777	556,763	503,752	473,276
Zircon Concentrate	"	48,673	72,458	88,561	59,269	113,356

FUEL MINERALS.

<i>Coal, Black—</i>						
Semi-anthracite	'000 tons	82	81	71	57	54
Bituminous	"	17,610	17,681	18,229	18,616	18,576
Sub-bituminous	"	1,583	1,512	1,619	1,769	1,668
<i>Total</i>	"	<i>19,275</i>	<i>19,274</i>	<i>19,919</i>	<i>20,442</i>	<i>20,298</i>
Coal, Brown (Lignite)	"	10,112	10,560	10,741	11,644	13,035

NON-METALLIC (EXCLUDING FUEL) MINERALS.

Asbestos	short ton	5,994	9,709	14,670	15,568	17,875
Barite	ton	6,264	6,009	9,778	6,802	6,214
<i>Clays—</i>						
Brick Clay and Shale	'000 tons	3,556	3,426	3,531	3,829	4,299
Other(j)	"	778	717	748	775	823
Diatomite	ton	5,042	5,789	6,221	4,240	5,089
Dolomite(j)	"	111,417	115,564	192,103	138,832	160,084
Felspar	"	20,833	18,629	8,819	7,016	6,750
Gypsum	"	470,014	463,355	478,436	504,938	516,791
Limestone(j)	'000 tons	3,998	4,264	4,572	5,324	5,305
Magnesite	ton	57,674	64,685	83,473	69,391	60,586
Mica—Muscovite, trimmed	lb.	56,649	28,837	36,713	31,391	33,665
Salt, Crude	ton	369,323	408,689	427,600	429,534	467,532
Silica (Glass, Chemical, etc.)(i)	"	121,268	142,485	149,339	145,483	154,778
Talc	"	12,691	13,160	14,441	15,393	16,376

NOTE.—See next page for footnotes.

QUANTITIES OF PRINCIPAL MINERALS PRODUCED: AUSTRALIA(a)—*continued.*

Mineral.	Unit.	1955.	1956.	1957.	1958.	1959.
CONSTRUCTION MATERIALS. (k)						
Sand	'000 tons	3,732	4,314	4,126	4,118	4,623
River Gravel and Gravel Boulders	"	1,743	2,116	1,764	2,265	2,524
Dimension Stone	"	274	231	230	272	283
Crushed and Broken Stone	"	13,367	14,817	15,404	15,543	19,822
Other (Decomposed Rock, etc.)	"	10,758	11,113	12,546	12,722	13,699

(a) Excludes Australian Capital Territory where production is confined to brick clay mining and construction material quarrying. (b) Includes cupreous ore for fertilizer. (c) Includes a small quantity of gold ore. (d) Bullion, alluvial, retorted gold, etc. (e) Gross weight not available. (f) Iron oxide for metal extraction. (g) Includes lead-silver ore. (h) Includes a small quantity of lead-zinc ore. (i) Incomplete; figures relate only to production reported by Mines Departments. (j) Excludes quantities used directly as a building or road material. (k) Incomplete owing to difficulties of coverage.

NOTE.—Particulars of uranium concentrate produced are not available for publication and have been excluded from the table above.

3. Contents of Metallic Minerals Produced in 1959.—The following table shows the contents of metallic minerals produced in 1959 which were "pay metals" or which were recovered as "refiners' prizes". Further particulars for earlier years are shown in the following paragraph and in the sections later in this chapter covering principal contents.

CONTENTS OF METALLIC MINERALS PRODUCED, 1959.

Content of Metallic Minerals Produced.	Unit.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Aust.
Alumina (Al ₂ O ₃)	ton	1,648	1,991	..	..	(a) 3,275	..	..	6,914
Antimony	"	1,279	1	..	..	..	..	..	1,280
Beryllium Oxide (BeO)	unit (b)	560	..	(a) 5	(a) 12	3,010	..	..	3,587
Cadmium	ton	801	..	..	..	..	59	..	860
Chromic Oxide (Cr ₂ O ₃) .. .. .	"	..	..	(a) 60	..	..	..	(a) 60	60
Cobalt	"	60	..	..	..	..	(c) 9,953	..	94,950
Copper	"	3,728	14	66,798	16	2,197	12,244	9,953	94,950
Gold	fine oz.	13,275	34,662	91,687	16	860,969	21,353	63,142	1,085,104
Iron(d)	'000 tons	..	..	54,415	(a) 2,219	481	..	..	(e) 2,700
Lead	ton	246,449	..	(a) 4,350	8	1,382	14,039	..	316,293
Manganese(f)	"	620	..	..	..	35,996	..	..	40,966
Manganese Dioxide (MnO ₂)g	"	907	..	..	..	162	..	1,406	2,475
Monazite	"	173	..	77	..	(a) 81	..	..	331
Osmiridium .. .. .	"	..	..	..	..	..	3	..	3
Silver	oz.	..	..	..	..	..	..	..	..
Sulphur(h)	fine oz.	8,555	2	4,954	(c) 180	1,369	101	..	15,161
Tantalite-Columbite (Ta ₂ O ₅ + Nb ₂ O ₅)	ton	188,892	..	17,464	a 27,616	24,473	52,100	..	310,545
Tin	lb.	..	..	1,104	..	8,499	..	..	8,499
Titanium Dioxide (TiO ₂)	ton	174	..	..	..	174	890	9	2,351
Tungstic Oxide (WO ₃)	"	44,903	..	34,736	..	45,662	..	..	125,301
Zinc	"	(c) 202,675	..	13,983	..	..	645	8	653
Zircon	"	71,156	..	34,504	..	6,692	32,475	..	249,133
									112,352

(a) Estimated. (b) 1 unit = 22.4 lb. (c) Less than half the unit of quantity shown. (d) Excludes iron content of iron oxide not intended for metal extraction. (e) Partly estimated. (f) Content of metallurgical grade manganese ore. (g) Content of manganese ore of other than metallurgical grade. (h) Sulphur content of pyrite and other minerals from which sulphur is extracted.

NOTE.—Particulars of production of uranium oxide (U₃O₈) are not available for publication and have been excluded from the table above.

4. **Contents of Metallic Minerals Produced in Australia, 1955 to 1959.**—Particulars of the contents of metallic minerals produced in Australia in the years 1955 to 1959 are shown in the following table. Graphs showing details of the mine production of principal metals and coal from 1930 to 1960 may be found on pages 1063 and 1064.

CONTENTS OF METALLIC MINERALS PRODUCED: AUSTRALIA.

Content of Metallic Minerals Produced.	Unit.	1955.	1956.	1957.	1958.	1959.
Alumina (Al_2O_3) ..	ton	3,406	4,618	3,758	3,533	6,914
Antimony ..	"	922	903	1,209	1,356	1,280
Beryllium Oxide ..	"	"	"	"	"	"
(BeO) ..	unit(a)	2,428	3,768	4,570	2,900	3,587
Bismuth ..	lb.	2,800	5,120	1,344	2,328	..
Cadmium ..	ton	844	922	979	872	860
Chromic Oxide ..	"	"	"	"	"	"
(Cr_2O_3) ..	"	"	2,624	(b) 1,420	(h) 386	(c) 60
Cobalt ..	"	61	59	68	71	60
Copper ..	"	47,312	54,547	59,255	75,715	94,950
Gold ..	fine oz.	1,049,039	1,029,821	1,083,941	1,103,980	1,085,104
Iron(d) ..	'000 tons	2,297	2,536	2,463	2,539	2,700
Lead ..	ton	295,944	299,485	333,753	328,347	316,293
Manganese(e) ..	"	20,462	25,856	34,904	25,623	40,966
Manganese Dioxide ..	"	"	"	"	"	"
(MnO_2)(f) ..	"	1,378	1,464	1,239	2,819	2,475
Molybdenum Disulphide(MoS_2)(c) ..	lb.	5,381	190	5,236	8,568	..
Monazite ..	ton	149	93	132	423	331
Osmiridium ..	oz.	21	27	69	43	3
Platinum ..	"	7	18	17	22	..
Silver ..	"	"	"	"	"	"
	fine oz.	14,604	14,617	15,811	16,340	15,161
Sulphur(g) ..	ton	264,383	306,072	342,474	322,619	310,545
Tantalite-Columbite ..	"	"	"	"	"	"
($\text{Ta}_2\text{O}_5 + \text{Nb}_2\text{O}_5$) ..	lb.	15,454	85,690	23,499	6,736	8,499
Tin ..	ton	2,017	2,078	1,952	2,237	2,351
Titanium Dioxide ..	"	"	"	"	"	"
(TiO_2) ..	"	57,505	95,502	163,751	119,233	125,301
Tungstic Oxide ..	"	"	"	"	"	"
(WO_3) ..	"	1,482	1,582	1,409	850	653
Zinc ..	"	256,564	278,082	291,582	263,044	249,133
Zircon ..	"	48,210	71,769	87,703	58,745	112,352

(a) 1 unit = 22.4 lb. (b) Partly estimated. (c) Estimated. (d) Excludes iron content of iron oxide not intended for metal extraction. Partly estimated. (e) Content of metallurgical grade manganese ore. (f) Content of manganese ore of other than metallurgical grade. (g) Sulphur content of pyrite and other minerals from which sulphur is extracted.

NOTE.—Particulars of production of uranium oxide (U_3O_8) are not available for publication and have been excluded from the table above.

5. **Local Value of Minerals Produced, 1955 to 1959.**—Particulars of the estimated values of minerals (mine and quarry products) produced during the years 1955 to 1959 are shown in the following table. The values represent the estimated selling value at the mine or quarry of minerals produced during the years concerned.

LOCAL VALUE OF MINERALS PRODUCED: AUSTRALIA.
(£'000.)

Mineral.	1955.	1956.	1957.	1958.	1959.
METALLIC MINERALS.					
Copper Ore, Concentrate, etc.(a) ..	15,120	18,287	12,345	14,770	21,165
Gold Ore, Concentrate, Other forms, etc. ..	15,536	15,509	16,090	16,251	15,853
Iron Ore	(b)4,004	(b)4,449	(b)4,295	(b)4,393	4,633
Lead and Lead-Silver Ore and Concentrate, Lead-Copper Concentrate, etc.(a) ..	32,308	34,552	28,810	22,493	21,477
Manganese Ore	192	337	589	460	626
Pyritic Ore and Concentrate	1,091	1,023	1,166	1,112	1,068
Rutile Concentrate	2,995	6,430	8,577	4,524	3,838
Tin Concentrate	1,554	1,599	1,612	1,739	2,043
Tungsten Concentrates	3,375	3,332	2,167	871	410
Zinc Ore and Concentrate	7,879	8,215	3,655	2,565	4,888
Zircon Concentrate	392	604	854	487	1,008
Other Metallic Minerals	179	415	602	525	512
<i>Total Metallic Minerals</i>	<i>84,625</i>	<i>94,752</i>	<i>80,762</i>	<i>70,190</i>	<i>77,521</i>

FUEL MINERALS.					
Coal, Black	53,737	52,439	52,279	51,658	49,211
Coal, Brown	4,382	4,644	5,228	5,418	6,123
<i>Total Fuel Minerals</i>	<i>58,119</i>	<i>57,083</i>	<i>57,507</i>	<i>57,076</i>	<i>55,334</i>

NON-METALLIC (EXCLUDING FUEL) MINERALS.(c)					
<i>Total Non-metallic (excluding Fuel) Minerals</i>	<i>7,303</i>	<i>8,041</i>	<i>9,002</i>	<i>10,192</i>	<i>10,533</i>

CONSTRUCTION MATERIALS.(d)					
<i>Total Construction Materials</i>	<i>14,824</i>	<i>16,444</i>	<i>17,840</i>	<i>18,497</i>	<i>21,597</i>

TOTAL.					
<i>Total, All Minerals and Construction Materials (c)</i>	<i>164,871</i>	<i>176,320</i>	<i>165,111</i>	<i>155,955</i>	<i>164,985</i>

(a) Prior to 1958, the value of lead-copper concentrate was included with Copper Ore, Concentrate, etc.
 (b) Includes the value of iron oxide for fluxing.
 (c) Excludes Australian Capital Territory, details of which are included with construction materials.
 (d) Incomplete owing to difficulties of coverage.

NOTE.—Particulars of the value of uranium concentrate produced are not available for publication and have been excluded from the table above.

6. **Local and Net Value of Mining and Quarrying Production by Industry, 1959.**—Particulars of the local value (or value of output) and net value (or value of production) of production of the principal Mining and Quarrying industries for the year 1959 are shown in para. 4 (vi.), page 1041. Owing to the necessity of classifying individual mines according to the principal mineral produced, the values in the tables on pages 1041–2 for mining industry groups differ slightly in some cases from totals of the corresponding groups of mine products shown in the table in para. 5 above.

§ 4. Gold.

1. **Historical.**—The earliest definite record of the discovery of gold in Australia was made on 15th February, 1823, by James McBrien, a surveyor, while surveying the Fish River between Rydal and Bathurst, New South Wales, and there are records of gold having been identified in several places during the next 27 years. It is believed that the first authentic

discovery of gold from which actual mining operations resulted was made in January, 1846, about 10 miles east of Adelaide, South Australia. However, credit for the first discovery of payable gold is generally given to E. H. Hargraves, who notified the Government of New South Wales on 3rd April, 1851, of his find, located at the junction of the Summerhill and Lewis Pond Creeks in the Bathurst (N.S.W.) district. This caused a gold rush, and prospecting started in many localities.

The Colony of Victoria was separated from New South Wales on 1st July, 1851, and within a few days of its inception, the new government was notified of the discovery of gold in several places. It would appear that the Hon. W. Campbell discovered gold near Clunes (Victoria) in March, 1850, but temporarily concealed the fact, and his discovery was not disclosed until 8th July, 1851. The discovery of gold at Ballarat and Bendigo followed soon afterwards.

The early discoveries were of alluvial gold, and only crude equipment was required to work them. As a consequence, cities and towns were depleted of their population as large numbers rushed to the diggings. The Australian population growth from 438,000 at the end of 1851 to 1,168,000 at the end of 1861 can be said to be largely due to the discoveries of gold.

Discoveries continued to be made, including such important fields as Canoona (Queensland) in 1858, Forbes (New South Wales) in 1862, Gympie (Queensland) in 1868, and Charters Towers and Mount Morgan (both in Queensland) in 1882. With the discovery at Mt. Lyell (Tasmania) in 1886, the major discoveries in the eastern States ceased.

Western Australia did not enter the field for a considerable time after gold mining had become well established in most of the other States. Although some specimens had been found between 1850 and 1870, it was not until 1886 that the Kimberley field was discovered, followed by Yilgarn in 1887. In 1892, Bayley and Ford discovered Coolgardie, and in May of the following year Hannan and Flannigan found Kalgoorlie. In the year since, there have been no further discoveries of major goldfields although many profitable deposits in other localities have been found and worked.

The amount of gold won in Australia in any one year attained its maximum in 1903, the year in which Western Australian production reached its highest level. For the other States, the years in which the greatest yields were obtained were as follows:—New South Wales, 1852; Victoria, 1856; Queensland, 1900; South Australia, 1904; and Tasmania, 1899. In recent years, output from the Northern Territory has expanded considerably and the highest annual production was recorded as recently as 1956.

Owing to the exhaustion of the more easily worked deposits and increased costs due to deep mining, the production of gold in Australia declined from 3,837,979 fine oz. in 1903 to 427,160 fine oz. in 1929, the lowest output since its discovery. Increased activity in prospecting due to prevailing economic conditions resulted in some improvement in 1930, but the marked development between that year and 1939 was caused by the heavy depreciation of Australian currency in terms of gold. Following the outbreak of the 1939–45 War, there was a sharp fall in gold production to 656,867 fine oz. in 1944 and 657,213 fine oz. in 1945, but with the release of man-power after the war, there has been a slight upward trend in mine production of gold, which in 1953 exceeded 1,000,000 fine oz. for the first time since 1942. The devaluation of Australian currency in September, 1949, gave an impetus to gold production, but this was offset in the following years by increasing costs which brought about the closing of several large producers in New South Wales, Victoria and Western Australia.

2. Present Methods of Mining and Treatment.—Gold ores can be divided into two types, namely, free-milling and refractory. Free-milling ores are those that, when finely ground, will yield their gold content to amalgamation and/or cyanidation, and these are found in most of the gold deposits of Australia.

Some refractory ores, which are not amenable to amalgamation, allow their gold to be dissolved by cyanidation, from which solution the gold is then precipitated. However, on the Coolgardie field, where gold bearing sulphide and telluride minerals occur, it is necessary first to recover these from gangue by flotation. This concentrate is then roasted and the resulting calcine, an impure oxide containing free gold, is cyanided to yield gold. This is usually smelted as bullion, in which form it leaves the vicinity of the mine.

3. **Mine Production.**—The table hereunder shows the mine production of gold (gold content of minerals produced) during 1959 according to the mineral in which it was contained and the State or Territory of origin. It should be noted that the minerals shown below contain, in addition to gold, certain other metals.

GOLD : MINE PRODUCTION, 1959.

(Fine oz.)

Mineral in which contained.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	Aust.
Copper Ore, Concentrate, etc. ..	2,699	..	74,988	..	1,345	6,915	11,715	97,662
Gold Ore, Concentrate, etc. ..	461	34,662	16,645	16	859,624	112	51,427	962,947
Lead Concentrate ..	8,396	..	54	..	..	3,615	..	12,065
Lead-Copper Concentrate ..	..	..	..	..	..	8,436	..	8,436
Pyrite Concentrate..	..	..	..	..	(a)	..	..	(a)
Zinc Concentrate ..	1,719	..	..	..	..	2,275	..	3,994
Total Gold ..	13,275	34,662	91,687	16	860,969	21,353	63,142	1,085,104

(a) A small quantity of gold recovered from pyrite concentrate dispatched from Kalgoorlie for sulphuric acid manufacture is included with Gold Ore, Concentrate, etc.

The principal sources of production during 1959 were as follows:—

(i) *New South Wales.* There are now no mines employing four or more hands engaged solely in gold mining in New South Wales. Most of the gold produced during 1959 was contained in lead and zinc concentrates produced at Broken Hill and copper, lead, zinc and gold concentrates milled at Captain's Flat.

(ii) *Victoria.* At Chewton, near Castlemaine, one mine produced nearly half of the State's production. In addition, four gold mines located in the north-east of the State each produced more than 1,000 fine oz.

(iii) *Queensland.* The copper concentrate produced at Mt. Morgan contained more than three-quarters of the State's output of gold, nearly all the remaining production coming from a mine at Cracow.

(iv) *South Australia.* The only gold produced was won by prospectors.

(v) *Western Australia.* More than half of the total production came from the Coolgardie goldfields, while most of the remaining production came from the Dundas, Murchison and Yilgarn goldfields. A single mine at Fimiston maintained its position as the largest gold producer in Australia, mining 172,420 fine oz. during 1959, and three other mines each produced over 100,000 fine oz. in the same period.

(vi) *Tasmania.* Copper concentrate produced at Mt. Lyell contained most of the gold produced in Tasmania during 1959, while most of the remaining production was included in lead-copper, lead and zinc concentrates milled at Rosebery. A small quantity of gold was recovered from alluvial tin-mining operations.

(vii) *Northern Territory.* Gold production in the Northern Territory is centred around Tennant Creek.

The following table shows the recorded mine production of gold (i.e., gold content of minerals produced) in the several States and in Australia as a whole during each of the ten decennial periods from 1851 to 1950, and in single years from 1951 to 1959. Owing to defective information in the earlier years, it is likely that the recorded production falls considerably short of the actual totals.

GOLD : MINE PRODUCTION.(a)

('000 fine oz.)

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Aust.
1851-60	2,714	21,973	3	..	..	1	..	24,691
1861-70	3,220	15,327	489	..	..	3	..	19,039
1871-80	2,019	9,564	2,527	136	..	165	19	14,430
1881-90	1,014	6,689	3,259	58	42	357	168	11,587
1891-1900	2,432	7,040	5,648	52	5,252	550	214	21,188
1901-10	2,253	7,095	5,512	73	17,784	604	111	33,432
1911-20	1,145	3,067	2,263	55	10,671	202	23	17,426
1921-30	204	593	434	10	4,557	43	2	5,843
1931-40	569	1,052	1,021	53	8,474	130	84	11,383
1941-50	572	800	750	13	6,683	157	148	9,123
1951	49	66	79	(b)	648	15	39	896
1952	39	68	85	(b)	727	16	45	980
1953	26	64	92	(b)	823	17	53	1,075
1954	32	53	98	(b)	862	19	54	1,118
1955	30	38	64	(b)	835	17	65	1,049
1956	29	39	56	(b)	814	17	75	1,030
1957	31	46	63	(b)	850	20	74	1,084
1958	19	41	75	(b)	875	22	72	1,104
1959	13	35	92	(b)	861	21	63	1,085
Total, 1851-1959 ..	16,410	73,650	22,610	450	60,758	2,376	1,309	177,563

(a) Gold content of minerals produced.

(b) Less than 500 fine oz.

4. Refinery Production.—Amalgam and gold slimes from cyanide extraction are treated at the mines to produce gold bullion, which at some mines may be partly refined before dispatch to the Royal Mints, located in Melbourne and Perth. By-product gold from lead smelting is refined at Port Pirie in South Australia, while the gold contained in copper refinery sludges, resulting from electrolytic copper refining at Mount Lyell and Port Kembla, is recovered at Port Kembla. Gold bullion and other gold-bearing materials are also refined in Sydney.

Details of the refinery production of gold in Australia and the value of refined newly-won gold of Australian origin are shown in the following table for each of the years 1956 to 1960. The value of the refined newly-won gold is based on the price fixed by the Commonwealth Bank, but allowance is made for premiums on sales of gold overseas and for industrial purposes in Australia.

PRODUCTION OF REFINED GOLD IN AUSTRALIA.

Particulars.	1956.	1957.	1958.	1959.	1960.
QUANTITY (FINE OZ.).					
Australian Origin—					
Newly-won Gold	1,044,164	1,078,419	1,069,774	1,067,129	1,045,139
From Scrap	20,106	21,480	17,350	20,617	22,699
Oversea Origin—					
Newly-won Gold	161,065	171,970	136,998	141,624	142,526
From Scrap	708	1,248	888	1,075	1,164
Total	1,226,043	1,273,117	1,225,010	1,230,445	1,211,528
VALUE (£'000).					
Newly-won Gold of Australian Origin	16,346	16,872	16,720	16,677	16,396

5. **Changes in Stocks of Gold held in Australia.**—The following table shows particulars of production, imports and exports of gold and changes in stocks of gold held in Australia for each of the years 1955 to 1959.

CHANGES IN STOCKS OF GOLD HELD IN AUSTRALIA.

(Fine oz.)

Particulars.	1955.	1956.	1957.	1958.	1959.
Mine Production of Gold(a) ..	1,049,039	1,029,821	1,083,941	1,103,980	1,085,104
Imports of Gold(b)(c) ..	150,606	201,883	159,998	160,232	136,674
<i>Total</i>	<i>1,199,645</i>	<i>1,231,704</i>	<i>1,243,939</i>	<i>1,264,212</i>	<i>1,221,778</i>
Exports of Gold(b)	1,136,575	531,010	783,814	128,550	128,052
Gold Content of Ores and Concentrates Exported ..	15,748	18,177	19,561	22,453	17,941
Net Industrial Consumption of Gold	33,217	33,778	33,028	29,135	33,938
<i>Total</i>	<i>1,185,540</i>	<i>582,965</i>	<i>836,403</i>	<i>180,138</i>	<i>179,931</i>
Changes in Stocks of Gold held in Australia(d)	+ 14,105	+ 648,739	+ 407,536	+ 1,084,074	+ 1,041,847

(a) Gold content of minerals produced in Australia. (b) Includes gold contained in matte.
(c) Excludes gold imported in some minor minerals. (d) Includes gold content of change in stocks of mineral products awaiting refining; excludes gold specie.

6. **Production in Principal Countries.**—The quantities of gold produced in the principal producing countries and the estimated world total production in each of the years 1955 to 1959, according to data published by the Mineral Resources Division of the United Kingdom Overseas Geological Surveys, are shown in the table hereunder.

GOLD: PRODUCTION IN PRINCIPAL COUNTRIES.

('000 fine oz.)

Country.	1955.	1956.	1957.	1958.	1959.
Union of South Africa ..	14,601	15,897	17,031	17,656	20,066
Canada	4,542	4,384	4,434	4,571	4,445
United States of America ..	1,880	1,827	1,794	1,739	1,604
Australia	1,049	1,030	1,084	1,104	1,085
Ghana	687	638	790	853	913
Rhodesia and Nyasaland ..	527	540	540	559	572
Philippines	419	406	380	423	403
Colombia	381	438	325	372	398
Belgian Congo	370	374	374	356	351
Mexico	383	350	346	332	314
<i>Estimated World Total(a) ..</i>	<i>26,800</i>	<i>27,000</i>	<i>29,000</i>	<i>29,900</i>	<i>32,000</i>

(a) Excludes U.S.S.R. The United States Bureau of Mines has estimated U.S.S.R. production at 9-10 million ounces per annum in recent years.

7. **Prices of Gold.**—Under existing legislation, all gold produced in Australia is sold to the Reserve Bank. The official price of gold is fixed by the Reserve Bank, and on 1st May, 1954, it was raised from £15 9s. 10d. to £15 12s. 6d. per fine oz. The current price reflects the "parity" value of Australian currency established by the International Monetary Agreement Act 1947. Previously, the price of gold was based on the price for which gold could be sold abroad in official markets, less costs of movement.

Average prices of gold per fine oz. at mints in Australia and on the London gold market, for the years 1956 to 1960, are shown in the following table.

PRICES OF GOLD: AUSTRALIA AND LONDON.

(per fine oz.)

Place of Sale.	1956.	1957.	1958.	1959.	1960.
At Mints in Australia £A. s. d.	15 12 6	15 12 6	15 12 6	15 12 6	15 12 6
London .. fstg. s. d.	12 10 2	12 10 3	12 9 9	12 9 10	12 11 2

8. **Sales of Gold on Oversea Premium markets.**—In November, 1951, the Commonwealth Government decided to allow Australian gold producers to benefit from the high prices then being paid for gold on some overseas markets. To implement this decision, the Gold Producers' Association Limited was incorporated in December, 1951, and the first sales were made in that month. By arrangement with the Reserve Bank of Australia, the total quantity of newly-won gold delivered to the Bank by members of the Association in any calendar month, less the quantity required for industrial purposes in Australia, is available to the Association for sale on overseas premium markets during the ensuing two calendar months. The net proceeds from premium sales are distributed to members in proportion to their production of gold. The actual volume of sales on overseas premium markets has been dependent largely on the premium over the Australian fixed price. Towards the end of 1953, the price of gold on overseas premium markets fell sharply and by the end of 1957 regular monthly sales had virtually ceased. However, following the sharp rise in the price of gold on the London and other free gold markets in October, 1960, premium sales once again commenced in that month.

The following table shows the quantity and value of gold sold on overseas premium markets and the average price realized for these sales during the years 1956 to 1960. It should be noted that this series is in no way indicative of the average return to gold producers for all gold produced.

GOLD SOLD ON OVERSEA PREMIUM MARKETS.

Particulars.	Unit.	1956.	1957.	1958.	1959.	1960.
Quantity ..	fine oz...	505,262	687,115	189,537	37,346	383,970
Value ..	£A. f.o.b.	7,919,646	10,760,214	2,964,638	584,129	6,056,003
Average Price ..	£A. s. d.	15 13 6	15 13 2	15 12 10	15 12 10	15 15 5

9. **Assistance to the Gold-Mining Industry.**—(i) *Gold Subsidy.* After the collapse of high premium prices late in 1953, conditions in the gold-mining industry again became acute and many producers were faced with the prospect of closing down. To meet this situation, the Gold-Mining Industry Assistance Act was assented to on 18th November, 1954. The purpose of this Act was to assist the gold-mining industry in Australia and the Territories of Papua and New Guinea by the payment of a subsidy, subject to certain conditions, on the production and sales of gold. To be eligible for the subsidy, the value of a producer's output of gold must exceed 50 per cent. of the total value of his mine output. The subsidies paid under the original Act were increased under amendments enacted on 22nd October, 1957, and 22nd May, 1959. Under the Act as it now stands, the subsidy payable to small producers whose annual output does not exceed 500 fine oz. is £2 8s. 0d. per fine oz., irrespective of cost of production. For large producers, subsidy is paid at the rate of three quarters of the excess of the average cost of production over £13 10s. 0d. per fine oz. with a maximum amount of subsidy of £3 5s. 0d. per fine oz. Where a producer receives an amount in excess of the official price of £15 12s. 6d. per fine oz. as a result of

sales on oversea premium markets or otherwise, the subsidy payable shall be reduced by the amount of the excess. The subsidy is also limited to the extent that the annual net profit of a producer shall not, with the addition of the subsidy, exceed 10 per cent. of the capital investment in the company. The maximum expenditure on development allowable in determining costs is £5 5s. 0d. per fine oz. A further condition of the Act is that the recovery rate of the mine shall not fall below nine-tenths of that for the year previous to the commencement of the Act. Payments under the Act are to continue until 30th June, 1962.

Payments under the Act commenced in March, 1955, and the amounts paid to gold producers in the various States and Territories of Australia in each of the years 1956 to 1960 are shown in the following table.

NET SUBSIDY PAYMENTS TO GOLD PRODUCERS.
(£.)

Year.	New South Wales.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Papua and New Guinea.	Total.
1956 ..	17	31,478	2,848	..	496,819	..	1,020	63,979	596,161
1957 ..	34	56,044	620	..	512,708	..	8,345	10,761	588,512
1958 ..	26,951	38,380	3,958	..	623,394	..	16,360	44,485	753,528
1959 ..	107	41,500	2,937	55	652,266	..	39,181	52,449	788,495
1960 ..	14	45,881	881	35	698,242	..	4,253	65,292	814,598

(ii) *Income Taxation Exemption.* Income from gold mining is exempt from taxation in the hands of the producer. If the producer is a company, such income is exempt from taxation in the hands of the shareholders when paid as dividends.

10. *Employment in Gold Mining.*—Particulars of the numbers of persons employed in gold mining are shown in paras. 4 (ii) and (iii), pages 1039–40.

§ 5. Lead, Silver and Zinc.

1. *Historical.*—Prior to the discovery of the great Broken Hill lead-silver-zinc lode in 1883 by Charles Rasp, a boundary rider, the mining of lead-silver-zinc ores at other localities in New South Wales had been intermittent and only small quantities were produced. The Broken Hill lode has proved to be one of the biggest in the world and to date over 80 million tons of ore have been raised. The Broken Hill Proprietary Co. Ltd., now engaged in steel manufacture, was the company first formed to operate at Broken Hill and continued operations there until 1939 when the ore in its leases became exhausted. The first ores mined at Broken Hill were oxidized and required only simple smelting to produce a lead-silver bullion. No initial attempt was made to recover zinc and it was not until 1897 that the first commercial zinc concentrate was produced. The exhaustion of the oxidized ore early this century led to the mining of the deeper sulphide ores. The need to produce separate lead and zinc concentrates for smelting purposes, with economic metal recoveries, resulted in the perfection at Broken Hill of the differential ore flotation process. The preparation of sulphide concentrates by flotation methods is now used throughout the world. Mining operations at Broken Hill are now mainly carried on to the north and south of the original leases. In 1939, Lake George Mines Ltd. at Captain's Flat, near Canberra, commenced large-scale mining of a lead-zinc-copper ore body which had been first worked in 1882. The Captain's Flat mine is expected to cease operations during 1962 because of the exhaustion of ore reserves.

Lead-silver-zinc ores have been mined in Queensland since 1870, but it was not until 1923 that the largest ore-body, at Mt. Isa, was discovered by John Miles. Mt. Isa Mines Ltd. commenced mining operations at this centre in 1931. Mt. Isa is now the second largest centre in Australia producing lead-silver-zinc ores and the largest producer of copper. During the 1939–45 War, mining of lead-silver-zinc ores at Mt. Isa was suspended in favour of copper production.

Lead-silver ores were first discovered in Western Australia in the Northampton District in 1848 and most of the subsequent production in that State has been from that District.

The first recorded production of lead in Tasmania was in 1888, and of zinc, in 1919. Production has been restricted to the West Coast.

2. *Present Methods of Mining and Treatment.*—Nearly all ores now mined are composed of deep-lying sulphide minerals and it is therefore necessary to mine these ores by underground methods. At all large mines, it is the practice to produce separate lead and zinc concentrates,

with the lead concentrate containing most of the silver. These concentrates are prepared by differential flotation except in cases where a satisfactory concentrate can be obtained by gravity methods. In flotation plants, the ore is finely ground and by differential flotation a lead concentrate is first produced, with the zinc concentrate subsequently separated from the tailings. At Captain's Flat, differential flotation methods are used to produce successive concentrates of copper, lead, zinc and pyrite.

Particulars of representative Broken Hill lead and zinc concentrates are shown in para. 4, page 1035.

3. **Mine Production.**—The following table shows for 1959 the mine production (metal content of ores and concentrates produced) of lead, silver and zinc in Australia, and the respective minerals in which these metals were contained.

**LEAD, SILVER AND ZINC: CONTENT OF ORES AND CONCENTRATES
PRODUCED, 1959.**

Mineral in which contained.	N.S.W.	Vic.	Q'land.	S.A.	W.Aust.	Tas.	N.T.	Aust.
LEAD (tons).								
Lead Ore(a) ..	33	..	1,074	8	..	..	..	1,115
Lead Concentrate ..	242,323	..	52,948	..	1,382	9,742	..	306,395
Lead-Copper Con- centrate ..	..	..	..	..	..	2,521	..	2,521
Zinc Concentrate ..	4,093	..	393	..	..	1,776	..	6,262
Total Lead ..	246,449	..	54,415	8	1,382	14,039	..	316,293
SILVER (fine oz.).								
Copper Ore ..	10	..	128	..	..	..	60	198
Copper Concentrate ..	56,217	..	380,157	..	8,596	32,960	101,074	579,004
Gold Concentrate, etc. ..	47	2,016	22,648	..	169,890	..	4	194,605
Lead Ore(a) ..	5,109	..	31,108	394	..	..	..	36,611
Lead Concentrate ..	8,169,920	..	4,419,088	..	1,115	483,165	..	13,073,288
Lead-Copper Con- centrate ..	..	..	..	..	..	671,412	..	671,412
Silver Ore ..	..	..	29,175	..	..	..	..	29,175
Zinc Concentrate ..	323,900	..	70,905	..	..	181,533	..	576,338
Total Silver ..	8,555,203	2,016	4,953,209	394	179,601	1,369,070	101,138	15,160,631
ZINC (tons).								
Zinc Concentrate ..	202,675	..	13,983	..	..	32,475	..	249,133

(a) Includes lead-silver ore.

The principal sources of production of lead, silver and zinc during 1959 were as follows:—

(i) *New South Wales.* Lead and zinc concentrates, produced only at Broken Hill and Captain's Flat, contained nearly all the New South Wales production of lead and silver and all of the zinc. The five Broken Hill mines now operating, are:—Zinc Corporation Ltd., New Broken Hill Consolidated Ltd., North Broken Hill Ltd., Broken Hill South Ltd., and Barrier Central Pty. Ltd. These mines, during 1959, produced (in terms of the contents of all ores and concentrates produced) over 70 per cent. of Australia's lead and zinc and more than one half of the silver. Small quantities of lead-silver ore were produced, mainly in the Broken Hill district. In addition, the copper concentrate produced at Captain's Flat contained silver, as did small quantities of copper ore produced in other parts of the State and gold bullion produced from gold mining operations.

(ii) *Victoria.* All the silver produced was obtained from gold mining operations. No zinc bearing minerals are mined in Victoria and lead was last mined in 1957.

(iii) *Queensland.* Mt. Isa produced all the zinc concentrate and nearly all the lead concentrate in Queensland during 1959. These contained most of the State's production of lead and silver and all the zinc. Small quantities of lead ore were mined mainly at Mt.

Isa and in the surrounding district. Copper concentrates containing silver were produced at Mount Morgan, while some silver is also contained in gold bullion derived from gold ores, mainly at Cracow.

(iv) *South Australia.* Very small quantities of lead and silver were contained in lead ore mined in South Australia during 1959. No zinc ore for fertilizer was mined during that year.

(v) *Western Australia.* Most of the silver produced in Western Australia was obtained from gold bullion produced by the gold-mining industry. Lead ores, mined chiefly near Geraldton, contained lead and silver, while copper concentrate milled at Ravensthorpe also contained silver. No zinc was produced during 1959.

(vi) *Tasmania.* All the lead, silver and zinc was produced from mines on the West Coast. All the zinc and most of the lead and silver were produced from mines at Rosebery and Mt. Read and milled at Rosebery to produce separate lead, zinc, and lead-copper concentrates. Silver was also contained in copper concentrate milled at Mt. Lyell.

(vii) *Northern Territory.* No ores containing lead or zinc were mined during 1959. However, silver was produced in copper concentrates from Tennant Creek and from Rum Jungle and in small quantities of copper ore mined at various localities.

The table hereunder shows the quantities of lead, silver and zinc contained in minerals won in the several States and the Northern Territory during the years 1955 to 1959:—

LEAD, SILVER AND ZINC: CONTENT OF ORES AND CONCENTRATES PRODUCED.

State or Territory.	1955.	1956.	1957.	1958.	1959.
LEAD (tons).					
New South Wales	234,854	238,319	266,928	246,896	246,449
Victoria .. ..	..	..	4	..	..
Queensland	48,814	43,104	51,269	65,799	54,415
South Australia	2	17	20	13	8
Western Australia	1,007	5,828	3,087	1,854	1,382
Tasmania	11,267	12,217	12,445	13,785	14,039
Australia	295,944	299,485	333,753	328,347	316,293
SILVER (fine oz.).					
New South Wales	8,823,211	9,289,583	9,969,102	8,992,293	8,555,203
Victoria	1,633	2,255	3,157	3,018	2,016
Queensland	4,395,640	3,731,477	4,305,886	5,710,031	4,953,209
South Australia	142	653	975	613	394
Western Australia	200,748	192,589	187,530	189,375	179,601
Tasmania	1,166,307	1,372,881	1,299,062	1,394,818	1,369,070
Northern Territory	16,621	27,365	45,417	49,664	101,138
Australia	14,604,302	14,616,803	15,811,129	16,339,812	15,160,631
ZINC (tons).					
New South Wales	211,478	229,126	241,509	211,667	202,675
Queensland	17,138	16,231	19,536	17,484	13,983
South Australia .. ..	..	7	97	113	..
Western Australia .. ..	..	..	..	20	..
Tasmania	27,948	32,718	30,440	33,760	32,475
Australia	256,564	278,082	291,582	263,044	249,133

4. **Smelter and Refinery Production.**—(i) *Lead Concentrate.* Lead concentrate produced at Broken Hill is railed to Port Pirie, in South Australia, for smelting and refining. Lead-silver bullion is produced from initial smelting, and lead, silver and gold are then refined. Cadmium is obtained from smelter fumes and refined to produce rods of metal. The sulphur dioxide gas formed during pre-smelter sintering operations is used to manufacture sulphuric acid. The antimony contained in the concentrate is alloyed with lead to form marketable antimonial lead while the copper is processed to the matte and speiss stage and sent to copper refineries for copper extraction. Lead concentrates produced at Broken Hill are now in excess of Port Pirie smelter and refinery capacity and part of the Broken Hill production is exported.

Lead ore and concentrate produced at Mount Isa is smelted at the mine to derive a lead bullion which is rich in silver. All of this bullion is exported to the United Kingdom for refining. A lead-copper dross is produced as a by-product of lead smelting and this is also exported.

Lead and lead-copper concentrates produced in Tasmania, and lead concentrates produced at Captain's Flat in New South Wales and in Western Australia, are exported.

(ii) *Zinc concentrate.* About half of the zinc concentrate produced at Broken Hill is exported overseas, and the remainder is shipped from Port Pirie to Risdon, near Hobart, for refining. At Risdon, the Broken Hill concentrate, together with all zinc concentrate produced in Tasmania, is roasted to form zinc oxide, or calcine. Sulphur dioxide formed during this roasting process is used for the manufacture of sulphuric acid. The calcine is leached with a weak solution of sulphuric acid to form a zinc sulphate solution which, after purification, is electrolysed. Zinc of high purity is deposited on the cathodes and this zinc is melted and cast into ingots. Cadmium metal and cobalt oxide are also recovered. Lead-silver residues are recovered and forwarded to Port Pirie for smelting with lead concentrates. Copper residues are sent to Port Kembla for treatment.

Zinc concentrates produced at Mt. Isa and Captain's Flat are exported.

In the following table, details are given of the production and sales of refined primary lead, silver and zinc as recorded from data received from the Bureau of Mineral Resources and the Australian Mines and Metals Association. The figures shown for refined silver production include small quantities recovered from imported materials.

REFINED LEAD, SILVER AND ZINC : PRODUCTION AND SALES, AUSTRALIA.

Particulars.	1955.	1956.	1957.	1958.	1959.
LEAD (tons).					
Refined Lead— Production(a)	187,134	194,506	192,161	191,474	185,805
Sold to Australian consumers(b)	45,851	38,616	37,291	39,928	33,563
Sold for export(b)	148,189	151,628	152,432	158,075	133,340
Lead-Silver Bullion— Produced for export (lead content)(a)	37,392	41,658	46,891	57,171	50,310
SILVER ('000 fine oz.).					
Production(a)	7,818	8,232	8,011	9,101	7,805
Sold to Australian consumers(b)	1,928	1,893	4,410	4,184	4,775
Sold for export(b)	5,793	6,214	3,397	5,074	2,722
ZINC (tons).					
Production(a)	101,090	104,993	110,348	114,773	116,461
Sold to Australian consumers(b)	71,355	69,760	78,874	72,844	78,753
Sold for export(b)	34,049	32,718	37,316	37,989	40,950

(a) Source: Bureau of Mineral Resources.

(b) Source: Australian Mines and Metals Association.

5. **Production in Principal Countries and World Total.**—The following table shows, for the years 1955 to 1959, particulars of lead, silver and zinc production (mine basis) in principal producing countries, together with the estimated world total, according to data published by the Mineral Resources Division of the United Kingdom Overseas Geological Surveys.

LEAD, SILVER AND ZINC: MINE PRODUCTION IN PRINCIPAL COUNTRIES.

Country.	1955.	1956.	1957.	1958.	1959.
LEAD ('000 tons).					
U.S.S.R. (a) (b)	250	260	280	300	320
Australia	296	299	334	328	316
United States of America	302	315	302	239	228
Mexico	207	196	211	199	187
Canada	181	169	162	167	167
Peru	117	127	135	132	117
<i>Estimated World Total</i>	2,200	2,200	2,300	2,300	2,300

SILVER ('000 fine oz.).					
Mexico	47,958	43,078	47,150	47,592	44,075
Canada	27,984	28,432	28,823	31,163	32,329
United States of America	37,198	38,948	38,165	34,111	31,194
U.S.S.R. (a)	25,000	25,000	25,000	25,000	25,000
Peru	22,948	22,973	24,845	25,918	24,768
Australia	14,604	14,617	15,811	16,340	15,161
Japan	5,949	6,167	6,544	6,552	6,651
Belgian Congo	4,083	3,794	3,045	3,794	4,758
Bolivia	5,851	7,543	5,375	6,051	4,504
Germany, Eastern (a)	4,500	4,500	4,500	4,500	4,500
<i>Estimated World Total</i>	199,000	201,000	205,000	210,000	201,000

ZINC ('000 tons).					
United States of America	460	484	475	368	380
U.S.S.R. (a) (b)	255	270	300	325	370
Canada	387	377	369	380	352
Mexico	265	245	237	221	260
Australia	257	278	292	263	249
Poland (b)	154	151	156	160	165
Japan	107	121	134	141	139
Peru	163	172	152	133	130
<i>Estimated World Total</i>	2,880	3,040	3,100	3,070	3,050

(a) Estimated.

(b) Smelter production.

6. **Prices of Lead, Silver and Zinc.**—The following table shows average prices of lead, silver and zinc in Australia and on the London Metal Exchange during the years 1956 to 1960.

PRICES OF LEAD, SILVER AND ZINC.

Particulars.	1956.	1957.	1958.	1959.	1960.
<i>Australian Prices, in Australian currency—</i>					
Lead, per ton .. £	140	117	(a) 87	100	100
Silver, per fine oz.(b) s. d.	8 3	8 3	8 0	8 2	8 3
Zinc, per ton(c) .. £	122	104	91	105	113
<i>London Metal Exchange Prices, in sterling—</i>					
Lead, per ton .. £	116	97	73	72	72
Silver, per fine oz. s. d.	6 7	6 7	6 4	6 7	6 7
Zinc, per ton .. £	98	82	65	80	88

(a) Average market price was used for the periods shown prior to 23rd December, 1958, when the minimum price was fixed at £100 per ton. (b) Silver prices shown represent export parity calculated from London Metal Exchange prices.

(c) Prior to 1st January, 1958, and subsequent to 30th June, 1959, the prices shown were average market prices. On 1st January, 1958, a minimum price was fixed at £90 and this minimum was later raised to £100 on 22nd December, 1958. The minimum price was abolished on 1st July, 1959.

7. **Employment in Lead, Silver and Zinc Mining.**—Particulars of the number of persons employed in mining for these metals are shown in paras. 4 (ii) and (iii), pages 1039–40.

§ 6. Copper.

1. **Historical.**—Copper was first discovered in Australia in 1842, at Kapunda in South Australia and in the Northampton district of Western Australia. The subsequent large-scale mining of the South Australian deposits contributed significantly to that State's development, but now only very small quantities are mined in South Australia.

The mining of copper commenced in New South Wales in 1847, near Rockley. Copper was first recognized in the Cobar district in 1869, and large-scale mining continued at Cobar until 1952. Other fields were opened at Mt. Hope in 1878, Nymagee in 1880 and Captain's Flat in 1882, but of these, only Captain's Flat is still producing.

The first important discovery of copper in Queensland was made in 1862, when a rich lode was found near Clermont. Copper was discovered in the Herberton mineral field in 1879 and at Mt. Morgan in 1882. The copper ore body at Mt. Isa was not recognized as an outcrop when the lead-zinc ore body was discovered in 1923, and was discovered as a result of underground development.

Copper mining was first undertaken at Mt. Isa during the 1939–45 War, but it was not until the erection of a copper smelter at that centre that large-scale production commenced. The Mt. Isa mine is today Australia's largest producer of copper.

In Tasmania, the Mt. Lyell deposit was discovered in 1886.

2. **Methods of Mining and Treatment.**—Most of the large copper ore bodies contain the mineral chalcopyrite, an iron-copper sulphide. Copper ore is mined by opencut methods at Mt. Morgan and Mt. Lyell and by underground methods at Mt. Isa, Captain's Flat and Ravensthorpe (Western Australia). Oxidized copper ore is mined at Mt. Isa and at numerous other localities, mainly in Western Australia.

It is the practice for the sulphide ore to be finely ground and for the chalcopyrite contained in it to be recovered by flotation. At Mt. Lyell and Mt. Morgan, the tailings from the copper flotation are subjected to a further flotation and a pyrite concentrate is produced. The oxidised ore mined at Mt. Isa is not concentrated and is fed direct to the smelters.

3. **Mine Production.**—The following table shows for 1959 the copper content of all minerals produced in the several States and the Northern Territory:—

COPPER: CONTENT OF ORES AND CONCENTRATES PRODUCED, 1959.
(Tons.)

Mineral in which Contained.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Aust.
Copper Ore, Concentrate, etc.	964	14	65,801	16	2,197	11,575	9,953	90,520
Lead Concentrate	2,323	..	997	..	..	..	..	3,320
Lead-Copper Concentrate . . . . .	..	..	..	..	..	487	..	487
Zinc Concentrate	441	..	..	..	..	182	..	623
Total	3,728	14	66,798	16	2,197	12,244	9,953	94,950

The following were the principal sources of copper during 1959:—

- (i) *New South Wales.* Most of the copper produced in this State was contained in lead concentrate milled at Broken Hill. At Captain's Flat, nearly all the copper was contained in lead concentrate. Small quantities of copper were precipitated from water pumped from old mine workings, mainly at Cobar.
- (ii) *Victoria.* A small quantity of copper ore was mined in North Gippsland. This was the first production recorded in post-war years.
- (iii) *Queensland.* Mt. Isa was the most important copper producer in Australia, its 1959 output being 61 per cent. of the Australian total. The copper produced at Mt. Isa is contained in copper sulphide concentrate, oxidized copper ore and lead concentrate. Copper concentrate containing appreciable gold and silver, was also produced at Mt. Morgan. Other copper was contained in copper ore mined mainly near Mt. Isa and Cloncurry and in copper precipitate.
- (iv) *South Australia.* Only a negligible quantity of copper was produced from areas which in the past were important for copper.
- (v) *Western Australia.* Approximately one half of the copper mined was contained in copper concentrate produced at Ravensthorpe. The remainder was contained in copper ore won at various localities in the State for fertilizer manufacture.
- (vi) *Tasmania.* Most of the State's production was at Mt. Lyell, where copper was contained in copper concentrate and precipitate. Lead-copper concentrate and zinc concentrate milled at Rosebery made up the remainder of Tasmania's production.
- (vii) *Northern Territory.* At Rum Jungle, a copper concentrate and a copper precipitate were produced in association with uranium mining. A copper concentrate was also produced at Tennant Creek. Small quantities of ore were mined at other localities.

The table hereunder shows the quantities of copper contained in minerals produced in the several States and the Northern Territory during the years 1955 to 1959:—

COPPER: CONTENT OF ORES AND CONCENTRATES PRODUCED.
(Tons.)

State or Territory.	1955.	1956.	1957.	1958.	1959.
New South Wales	3,492	4,289	4,382	4,023	3,728
Victoria . . . . .	..	..	..	..	14
Queensland	31,858	35,708	35,786	50,511	66,798
South Australia . . . . .	..	1	2	1	16
Western Australia	699	740	788	1,107	2,197
Tasmania	8,394	8,807	10,984	11,413	12,244
Northern Territory	2,869	5,002	7,313	8,660	9,953
Australia	47,312	54,547	59,255	75,715	94,950

4. **Smelter and Refinery Production of Copper.**—Most of the copper concentrate milled in Australia is smelted locally, blister copper being produced at Mt. Isa, Mt. Morgan, Mt. Lyell and Port Kembla. Port Kembla smelts all of the concentrate from Captain's Flat and some from Tennant Creek.

Blister copper smelted at Mt. Isa is railed to Townsville for electrolytic refining at the refinery which commenced production there in 1959. Mt. Lyell blister copper is electrolytically refined at Mt. Lyell and the bulk is remelted and cast into primary shapes at Port Kembla. Mt. Morgan blister copper is shipped to Port Kembla, where together with blister produced at Port Kembla, it is refined. Most Port Kembla copper is electrolytically refined, although fire refining, which is a cheaper process and undertaken when there are no other metals to be recovered, is used to a lesser extent. Copper from some copper drosses and speisses, by-products of lead refining operations at Port Pirie, is also extracted at Port Kembla.

At Port Kembla, gold and silver contained in electrolytic refining tank house slimes from Mt. Lyell, Townsville, and Port Kembla are recovered.

In the following table, details are given of the production of blister copper, and the production and sales of refined copper for the years 1955 to 1959:—

METALLIC COPPER: PRODUCTION AND SALES, AUSTRALIA.

(Tons.)

Particulars.	1955.	1956.	1957.	1958.	1959.
Blister Copper—					
Production (a) (b) ..	37,439	49,030	50,403	64,608	68,494
Refined Copper (c)—					
Production (a) ..	28,148	29,307	32,880	43,276	51,593
Sold to Australian Con-					
sumers (d) ..	27,366	29,038	34,114	43,035	43,072
Sold for Export (d) ..	..	650	..	..	..

(a) Source: Bureau of Mineral Resources.
(c) Refined from domestic primary copper.

(b) Production for refining in Australia or overseas.
(d) Source: Australian Mines and Metals Association.

5. **Production in Principal Countries and World Total.**—The following table shows the mine production of copper for the years 1955 to 1959 in the principal producing countries, as published by the Minerals Resources Division of the United Kingdom Overseas Geological Surveys and their estimate of total world production in those years.

COPPER: MINE PRODUCTION IN PRINCIPAL COUNTRIES.

('000 tons.)

Country.	1955.	1956.	1957.	1958.	1959.
United States of America ..	892	986	970	874	736
Rhodesia and Nyasaland ..	354	399	432	401	545
Chile	427	482	478	460	538
U.S.S.R.(a)	350	400	400	430	450
Canada	291	317	321	308	353
Belgian Congo(b) ..	231	246	238	234	278
Australia	47	55	59	76	95
Japan	72	77	80	80	83
Mexico	54	54	60	64	56
Union of South Africa ..	44	46	46	49	50
Philippines	17	27	40	46	49
Peru	43	46	56	53	47
<i>Estimated World Total</i> ..	<i>3,100</i>	<i>3,400</i>	<i>3,500</i>	<i>3,400</i>	<i>3,600</i>

(a) Estimated.

(b) Smelter production.

6. Prices.—Details of the average market price for the years 1956 to 1960 are given in terms of Australian currency and sterling in the following table:—

AVERAGE PRICE OF ELECTROLYTIC COPPER IN AUSTRALIA AND THE UNITED KINGDOM.

(£ per ton.)

Country.	1956.	1957.	1958.	1959.	1960.
Australia — in Australian currency(a)	435	341	284	312	324
United Kingdom—in sterling	304	220	193	235	239

(a) Ex works Port Kembla.

7. Employment in Copper Mining.—Particulars of the numbers of persons engaged in the mining of copper and copper-gold ores are shown in paras. 4 (ii) and (iii), pages 1039–40,

8. Assistance to the Copper-mining Industry.—(i) *Copper Bounty*. The Copper Bounty Act was enacted in 1958, following a Tariff Board inquiry and recommendation, to provide assistance to the industry partly by duty and partly by bounty. The provisions of the Act were reviewed in 1960, and it will continue in its present form until 31st December, 1963. The bounty is payable on copper sold on the Australian market, and provides in effect payment at the rate of £1 for each £1 by which the Australian price falls short of £340, with a maximum of £35 a ton, or, in the case of producers of 50 tons per annum or more, such lesser bounty as will give a return of 10 per cent. on assessed capital employed in the production of copper. The bounty reduced the net effective price of copper to Australian consumers from £340 to £305. A duty is imposed on imported copper when the Australian equivalent of the London Metal Exchange price falls below £290 (£Stg.232), increasing by £1 for each £1 that the Australian equivalent falls below £290. Including freight and other charges, the landed cost is thus expected to be maintained at about £305 so long as the Australian equivalent of the London Metal Exchange price is not in excess of £290.

(ii) *Income Taxation Concession*. One-fifth of the net income from copper mining is exempt from taxation in the hands of the producer. If the producer is a company, this concession also applies to such income when paid to the shareholders as dividends.

§ 7. Tin.

1. Historical.—Although specimens of tin had been found in New South Wales as early as 1851, it was not until tin stone was discovered near Inverell in 1872 that mining operations commenced. The New England area is still the most important producing area in New South Wales.

The first notable discovery of tin in Queensland occurred in 1872, when rich deposits of stream tin were found in the country to the south of Warwick but these alluvial deposits soon became exhausted. In 1879, important discoveries were made in the Herbert River district and rich fields, including that at Herberton, were opened up.

Tin was first discovered in Western Australia in 1888, and since then has been found in several widely separated localities in the State. More than half of the production to date has come from the Greenbushes Mineral Field, and most of the remainder from the Pilbara goldfield.

Tin mining in Tasmania dates from the year 1871, when the Mount Bischoff mine was discovered. Soon afterwards, rich deposits were located in the north-east of the State and near St. Helens. In 1875, tin was discovered at Mt. Heemskirk.

2. Present Methods of Mining and Treatment.—All tin produced in Australia is contained in tin concentrate, which is usually of the mineral cassiterite (tin oxide). The greater proportion of the production is obtained from alluvial workings as a gravity concentrate. In the lode deposits, tin is usually not associated with other recoverable minerals. However, at two mines in Tasmania tin is associated with wolfram and sulphide minerals. At

these mines, a gravity concentrate of tin, wolfram and sulphide minerals is obtained and from this the wolfram is separated by electromagnetic means. The tin and sulphide minerals are separated by flotation, the sulphides being floated off and the tin remaining as tailings.

3. **Mine Production.**—The following table sets out the tin content of tin concentrate produced in Australia during the years 1955 to 1959. No tin is included in minerals other than tin concentrate.

TIN: CONTENT OF TIN CONCENTRATES PRODUCED.

(Tons.)

State.	1955.	1956.	1957.	1958.	1959.
New South Wales	270	269	211	239	174
Victoria	2	..	(a)	..	..
Queensland	770	630	772	1,019	1,104
Western Australia	119	240	182	94	174
Tasmania	853	938	777	883	890
Northern Territory	3	1	10	2	9
Australia	2,017	2,078	1,952	2,237	2,351

(a) Less than half a ton.

The following were the principal sources of production in 1959:—

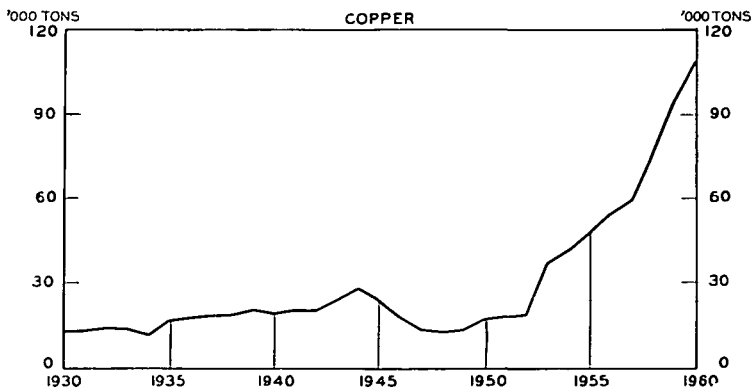
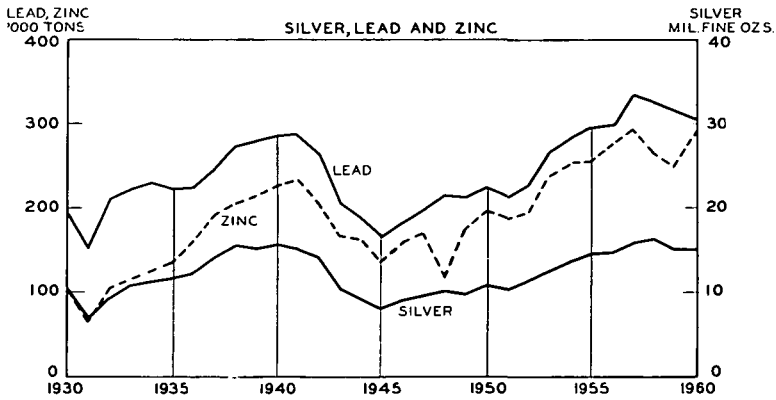
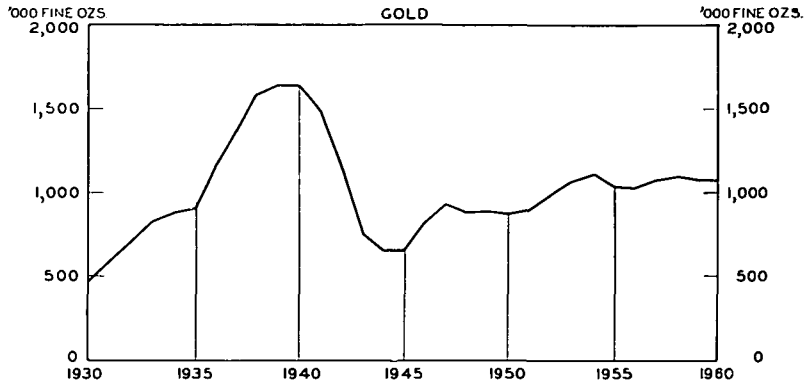
- (i) *New South Wales.* Virtually the whole of the State's production was from alluvial deposits. The New England region mainly around Tingha produced two-thirds of the total production.
- (ii) *Victoria.* No tin was produced in Victoria.
- (iii) *Queensland.* Most of the tin concentrate produced in Queensland was from the Herberton field, alluvial tin concentrate being produced. Tin concentrate was also produced in the Chillagoe, Kangaroo Hills and Cooktown districts.
- (iv) *South Australia.* No tin was produced in South Australia.
- (v) *Western Australia.* Nearly all the tin concentrate produced in Western Australia was lode tin won from the Pilbara field.
- (vi) *Tasmania.* Most of the tin concentrate produced in Tasmania is won in the north-east part of the State, from both lode and alluvial deposits. The largest amount of tin concentrate produced in Australia during 1959 came from a lode deposit in north-east Tasmania, and wolfram concentrate, as well as tin concentrate, was produced.
- (vii) *Northern Territory.* Small quantities were won at various localities.

4. **Smelting and Refining.**—Except for occasional small parcels of concentrate shipped to overseas smelters, all local production is treated by the two tin smelters located in Sydney. The combined capacity of the two smelters is well in excess of the domestic supply of concentrates and there seems little prospect of this capacity being fully utilized in the foreseeable future unless concentrates could be economically imported and smelted.

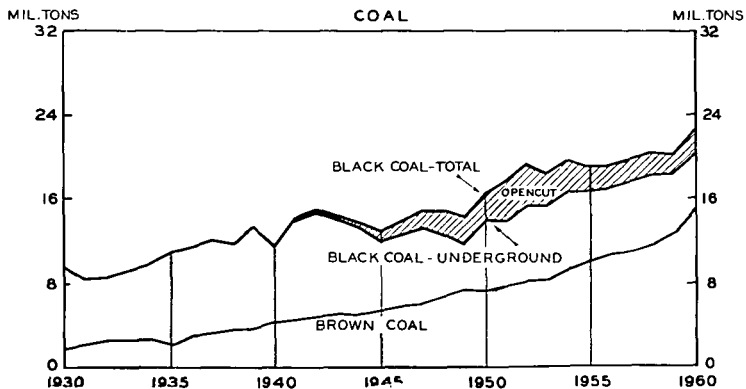
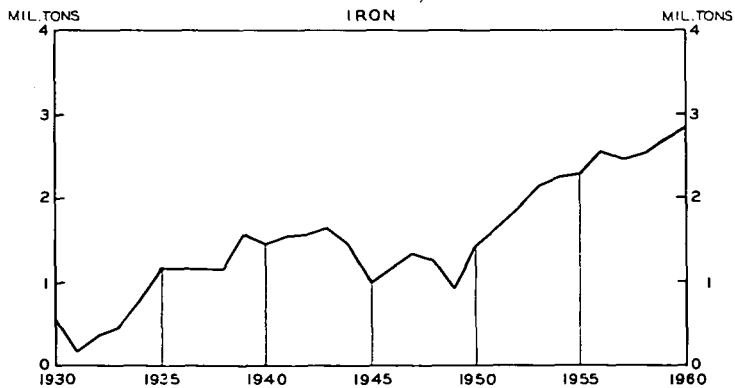
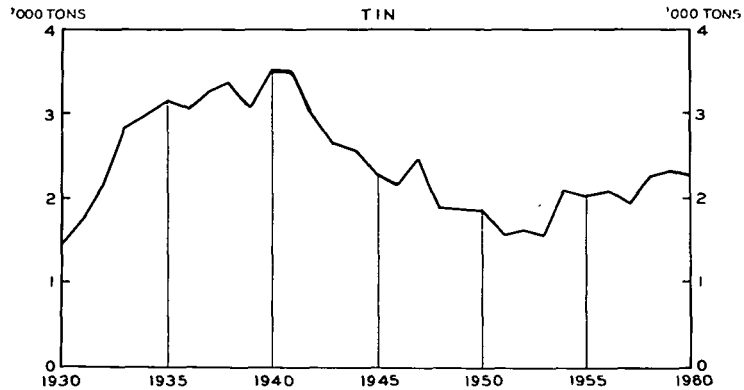
The production of refined tin in Australia from locally produced tin concentrate during recent years, as recorded by the Bureau of Mineral Resources, was as follows:—1956, 1,850 tons; 1957, 1,806 tons; 1958, 2,121 tons; 1959, 2,226 tons; and 1960, 2,254 tons.

5. **Production in Principal Countries and World Total.**—World production of tin reached its maximum in 1941 when 241,400 tons were recorded. Australia's contribution to the world's tin production is about 1 per cent.

MINE PRODUCTION OF PRINCIPAL METALS
(METALLIC CONTENT OF MINERALS)
AUSTRALIA, 1930 TO 1960



MINE PRODUCTION OF PRINCIPAL METALS
AND PRODUCTION OF COAL
(METALLIC CONTENT OF MINERALS)
AUSTRALIA, 1930 TO 1960



The production of tin ore (metal content) as published by the Mineral Resources Division of the United Kingdom Overseas Geological Surveys, for the principal producing countries in 1958 and 1959 was as follows:—

TIN : PRODUCTION IN PRINCIPAL COUNTRIES.

(Tons.)

Country.	Production.		Country.	Production.	
	1958.	1959.		1958.	1959.
Malaya, Federation of	38,458	37,521	Australia ..	2,237	2,351
Indonesia	23,200	21,613	Burma(b)	1,200	1,400
Bolivia	18,000	23,811	Union of South Africa	1,416	1,272
China(a)	17,731	21,000	United Kingdom ..	1,117	1,159
Belgian Congo ..	11,214	10,320	Portugal	1,249	1,129
Thailand	7,726	9,692	<i>Estimated World</i>		
Nigeria	6,154	5,491	<i>Total(c) ..</i>	134,000	141,000

(a) Estimated smelter production.
and Vietnam.

(b) Estimated.

(c) Excludes U.S.S.R., Czechoslovakia

6. Prices.—Details of the movement in average market prices of tin for the years 1956 to 1960 are given in terms of Australian currency and sterling in the following table:—

AVERAGE PRICE OF TIN IN AUSTRALIA AND THE UNITED KINGDOM.

(£ per ton.)

Country.	1956.	1957.	1958.	1959.	1960.
Australia — in Australian currency	1,014	992	995	1,058	1,042
United Kingdom—in sterling	788	755	735	786	794

7. Employment in Tin Mining.—The number of persons employed in tin mining is shown in paras. 4 (ii) and (iii), pages 1039–40.

§ 8. Iron.

1. Historical.—Iron ore was first mined in New South Wales to supply raw material for the ironworks that were established near Mittagong in 1852. Iron ore for the ironworks established later at Lithgow was drawn from Carcoar, near Bathurst.

In South Australia, the iron ore deposits of the Middleback Ranges, near Whyalla, were first mined by the Broken Hill Proprietary Co. Ltd. in 1900 to provide a flux for lead smelting operations at Port Pirie. When that company opened its Newcastle steelworks in 1915, it greatly expanded ore production from the Middleback Ranges and most of the Australian steel industry's requirements of iron ore still come from this source.

Regular shipments of iron ore from Yampi Sound, north of Derby in Western Australia, to the steelworks at Port Kembla commenced in 1951. Iron ore for the iron smelter at Wundowie, which commenced operations in 1948, has in recent years been provided entirely from the deposits at Koolyanobbing, near Southern Cross.

Besides the large quantities of iron ore that are mined for metal extraction purposes, smaller quantities of iron oxide are mined for other purposes, such as gas purification, cement manufacture, coal washing and fluxing.

2. **Methods of Mining and Treatment.**—All iron ore and iron oxide is won by opencut mining. The ore is selectively mined, crushed and screened to provide a standard assay and size for blast furnace use. No concentration is carried out. The iron ore from Yampi Sound, however, is powdery and friable and has to be sintered, or agglomerated, before making up the furnace charge.

3. **Mine Production of Iron Ore.**—Iron oxide deposits exist in all States and in the Northern Territory, but at present iron oxide for metal extraction purposes, termed iron ore in this chapter, is produced in two States only. The following table shows the estimated iron content of iron ore produced during the years 1955 to 1959.

IRON : ESTIMATED IRON CONTENT OF IRON ORE PRODUCED.

(Tons.)

State.	1955.	1956.	1957.	1958.	1959.
South Australia	1,971,693	2,324,825	2,199,981	2,173,922	2,218,846
Western Australia	325,579	211,215	262,519	365,275	480,769
Australia	2,297,272	2,536,040	2,462,500	2,539,197	2,699,615

The producing centres during 1959 were as follows:—

- (i) *South Australia.* During 1959, 3,413,609 tons of iron ore were drawn from the Iron Monarch and Iron Baron deposits in the Middleback Ranges. Selected foundry grade ore was diverted as required to the Whyalla blast furnace, but the greater part was shipped to Newcastle and Port Kembla for smelting.
- (ii) *Western Australia.* During the year, 672,239 tons of ore were shipped from Yampi Sound, north of Derby, to New South Wales for sintering and smelting. A quantity of 54,845 tons was mined at Koolyanobbing, near Southern Cross, for pig iron production at Wundowie.

4. **Mine Production of Iron Oxide.**—Production of iron oxide, excluding that used for metal extraction (iron ore) and mineral pigments, in the several States during 1959, according to end use, is shown in the following table. Only total quantities of iron oxide produced are recorded; particulars of metallic content are not available.

IRON OXIDE PRODUCTION, 1959.

(Tons.)

Use.	New South Wales.	Victoria.	Queensland.	South Australia.	Tasmania.	Australia.
For gas purification ..	1,933	2,241	..	..	181	4,355
For cement manufacture ..	3,281	..	1,323	..	4,881	9,485
For coal washing	30	..	..	..	..	30
For fluxing .. ..	..	..	..	9,600	..	9,600
Total	5,244	2,241	1,323	9,600	5,062	23,470

The principal sources of iron oxide production during 1959 were as follows:—

- (i) *New South Wales.* Quantities of iron oxide for gas purification were obtained from deposits near Port Macquarie, while that used for cement manufacture was mined from the Mudgee and Rylstone mining divisions. Magnetite, used in coal washing, was produced from beach sand deposits near Murwillumbah.
- (ii) *Victoria.* Limonite ore used for gas purification was mined at Buchan.
- (iii) *Queensland.* Iron oxide produced for cement manufacture was mined near Townsville.
- (iv) *South Australia.* A quantity of 9,600 tons drawn from the Middleback Ranges was dispatched to Port Pirie for use as a flux in lead smelting operations.
- (v) *Tasmania.* Iron oxide for gas purification and cement manufacture was mined in the vicinity of Penguin.

Particulars of Australian production of iron oxide for the years 1955 to 1959, according to end use, are shown in the following table.

IRON OXIDE PRODUCTION: AUSTRALIA.
(Tons.)

Use.	1955.	1956.	1957.	1958.	1959.
For gas purification ..	5,328	6,479	5,338	2,864	4,355
For cement manufacture ..	7,400	9,126	9,759	6,093	9,485
For coal washing	183	..	4	25	30
For fluxing	10,605	10,440	4,650	8,100	9,600
Total	23,516	26,045	19,751	17,082	23,470

5. Iron and Steel Production.—(i) *Australia.* The production of pig-iron and steel ingots in Australia, of which New South Wales is the main producing State, is shown in the following table for each of the years ended 31st May, 1951 to 1960.

PIG-IRON AND INGOT STEEL: PRODUCTION, AUSTRALIA.
(Tons.)

Year Ended 31st May.	Pig-iron. (a)	Steel Ingots. (b)	Year Ended 31st May.	Pig-iron. (a)	Steel Ingots. (b)
1951	1,313,332	1,443,831	1956	1,910,521	2,320,289
1952	1,430,027	1,521,386	1957	2,098,352	2,773,995
1953	1,691,693	1,801,028	1958	2,283,925	3,037,705
1954	1,826,711	2,116,813	1959	2,293,709	3,203,584
1955	1,868,841	2,208,708	1960	2,655,237	3,519,719

(a) Includes pig-iron for castings; excludes ferro-alloys.

(b) Includes recovery from scrap.

In 1959, ten blast furnaces were operating in Australia; four at Port Kembla and three at Newcastle, in New South Wales, two at Windowie, Western Australia, and one at Whyalla, South Australia. During 1959, ingot steel was produced from 28 open-hearth furnaces (17 at Newcastle and 11 at Port Kembla) and from 10 electric furnaces (5 at Newcastle, 3 at Melbourne, 1 at Whyalla and 1 at Port Kembla).

(ii) *New South Wales.* The principal producers in Australia, both in New South Wales, are the Broken Hill Proprietary Co. Ltd. at Newcastle and Port Kembla, and Australian Iron and Steel Ltd. at Port Kembla.

(iii) *South Australia.* At Whyalla in South Australia, the Broken Hill Proprietary Co. Ltd. produces pig iron, using locally produced raw materials together with metallurgical coke from New South Wales. A small quantity of steel ingots is produced from an electric furnace.

(iv) *Western Australia.* In Western Australia, the State-owned Wundowie Charcoal Iron and Steel Industry produces pig iron, using charcoal for smelting. This high grade iron is used in the manufacture of spheroidal graphite cast iron, and considerable quantities are exported. At Kwinana, The Broken Hill Proprietary Co. Ltd. produces steel products from billets imported from New South Wales.

6. *Production of Iron and Steel in Principal Countries.*—Particulars of the production in the principal countries and the estimated world total production during the calendar years 1958 and 1959, according to figures published by the Mineral Resources Division of the United Kingdom Overseas Geological Surveys, are shown in the next table.

IRON AND STEEL: PRODUCTION IN PRINCIPAL COUNTRIES.
(’000 Tons.)

Country.	Pig-iron and Ferro-alloys.		Steel Ingots and Castings.	
	1958.	1959.	1958.	1959.
United States of America ..	52,507	55,468	76,120	83,434
U.S.S.R.	39,000	42,293	54,053	59,003
Germany, Federal Republic ..	16,396	18,103	22,425	25,414
United Kingdom	12,975	12,583	19,566	20,186
Japan	7,636	9,695	11,927	16,366
France	11,778	12,275	14,385	14,978
China	13,470	20,200	10,910	13,140
Italy	2,133	2,157	6,172	6,655
Belgium	5,432	5,871	5,886	6,332
Poland	3,803	4,305	5,574	6,062
Czechoslovakia	3,714	4,177	5,423	6,039
Canada	2,832	3,850	3,892	5,287
Luxembourg	3,233	3,357	3,325	3,605
Saar	3,054	3,169	3,406	3,536
Australia	2,276	2,503	3,156	3,382
Germany, Eastern	1,747	1,868	2,995	3,156
Sweden	1,392	1,382	2,369	2,795
Austria	1,789	1,808	2,355	2,472
India	2,102	3,144	1,813	2,429
<i>Estimated World Total ..</i>	<i>197,200</i>	<i>220,000</i>	<i>269,000</i>	<i>300,000</i>

§ 9. Mineral Sands.

1. *Historical.*—In recent years, the growing world demand for titanium metal has brought about a rapid expansion of Australian mineral sands mining. Australia is the largest producer of rutile and zircon in the world, and nearly all this production comes from the mineral sands deposits along the beaches of the east coast. The ilmenite produced on the east coast has proved unsuitable for titanium oxide pigment manufacture, and most of the production is discarded. However, ilmenite produced from mineral sands mined in Western Australia since 1956 has a much lower chromic oxide content than east coast ilmenite, and is therefore suitable for paint manufacture.

The first commercial development of the mineral sands deposits commenced at Byron Bay in New South Wales in 1934, when a mixed zircon-rutile-ilmenite concentrate was prepared. Large scale production of zircon-rutile concentrate commenced in Queensland in 1941 when electromagnetic separators were installed to separate the ilmenite. In 1943, after the installation of electrostatic separators, a rutile concentrate was produced. The Commonwealth Government banned the export of mixed concentrates in 1944, and all producers now turn out separate concentrates of rutile, zircon, ilmenite and monazite.

Production of rutile and zircon in 1959 was considerably lower than the record post-war production achieved in 1957, mainly because of reduced prices offering on world markets. Virtually all rutile and zircon concentrates are exported overseas.

2. **Present Methods of Mining and Treatment.**—Mineral bearing sands are usually recovered from sand dunes, but deposits occurring below sea level are recovered by suction dredges. The mineral sands and beach sand (quartz) are gravity concentrated, either by shaking tables or by spiral concentrators, resulting in the complete elimination of quartz and leaving a mixed concentrate of heavy minerals. Magnetic ilmenite and monazite are separated by electromagnetic methods and are then separately recovered, using increasing magnetic intensities. The remaining zircon and rutile are separated, using electrostatic separators. The above method is employed at nearly all plants, but Zircon Rutile Ltd., at Byron Bay, recovers a zircon concentrate from the raw sand using froth flotation.

3. **Mine Production.**—(i) *Titanium Dioxide.* The following table shows the quantities of titanium dioxide contained in rutile and ilmenite concentrates produced during the years 1955 to 1959.

TITANIUM DIOXIDE: CONTENT OF CONCENTRATES PRODUCED.
(Tons.)

State.	1955.	1956.	1957.	1958.	1959.
CONTAINED IN RUTILE CONCENTRATE.					
New South Wales	33,045	62,470	83,363	44,915	44,792
Queensland	24,198	30,772	41,500	35,755	34,736
Western Australia .. ..	..	..	..	285	96
Australia	57,243	93,242	124,863	80,955	79,624
CONTAINED IN ILMENITE CONCENTRATE.					
New South Wales	230	481	485	59	111
Queensland	32	..	78	..	..
Western Australia .. ..	..	1,779	38,325	38,219	45,566
Australia	262	2,260	38,888	38,278	45,677

(ii) *Zircon.* The quantities of zircon mineral contained in zircon concentrate produced during the years 1955 to 1959 are shown in the table below.

ZIRCON: CONTENT OF ZIRCON CONCENTRATE PRODUCED.
(Tons.)

State.	1955.	1956.	1957.	1958.	1959.
New South Wales	32,465	50,135	58,747	32,230	71,156
Queensland	15,745	21,634	28,956	26,412	34,504
Western Australia .. ..	..	..	..	103	6,692
Australia	48,210	71,769	87,703	58,745	112,352

(iii) *Other Products.* Small quantities of monazite concentrate, tin concentrate, magnetite and garnet concentrate were also recovered from mineral sands.

(iv) *Sources of Production.* The principal sources of mineral sands treated during 1959 were:—

(a) *New South Wales and Queensland.* The main deposits of mineral sands occur along 300 to 400 miles of the eastern Australian coast from Swansea, New South Wales to Curtis Island, Queensland. At present, the principal mining operations are located within a 90 mile stretch of coast extending from Byron Bay, New South Wales, to North Stradbroke Island, Queensland.

(b) *Western Australia.* Deposits of mineral sands occur on the south-west coast of Western Australia, in the Bunbury and Albany districts.

4. *Employment in Mineral Sands Mining.*—Particulars of the number of persons employed in mineral sands mining are shown in paras. 4 (ii) and (iii), pages 1039–40.

§ 10. Aluminium.

1. *Mine Production.*—The source of aluminium is the ore bauxite, which is produced in small quantities in New South Wales, Victoria and Queensland. Australian production is used for the manufacture of refractories, all bauxite used for metal extraction during 1959 (except a small quantity of Western Australian ore used for plant tests) being imported, mainly from Indonesia. Large deposits of bauxite exist on the Cape York Peninsula in north Queensland, and it is expected that this raw material will be refined in Australia when mining commences. The alumina content of bauxite produced in Australia during the years 1955 to 1959 is shown in the following table:—

ALUMINA : CONTENT OF BAUXITE PRODUCED.

(Tons.)

State.	1955.	1956.	1957.	1958.	1959.
New South Wales	902	1,578	1,354	633	1,648
Victoria	1,644	2,600	1,910	2,304	1,991
Queensland	(a) 860	(a) 440	(a) 494	(a) 596	..
Western Australia .. ..	..	..	..	..	(a) 3,275
Australia	3,406	4,618	3,758	3,533	6,914

(a) Estimated.

2. *Refinery Production.*—A refinery for the production of alumina and refined aluminium was constructed at Bell Bay on the Tamar River, in Northern Tasmania. The location of this refinery was determined by the availability of large supplies of hydro-electric power. Production of alumina commenced in February, 1955, and of refined aluminium in September, 1955. The following table shows the production of alumina and refined aluminium in Australia during the years 1956 to 1960:—

ALUMINA AND REFINED ALUMINIUM : PRODUCTION, AUSTRALIA.

(Tons.)

Refinery Product.	1956.	1957.	1958.	1959.	1960.
Alumina	16,863	20,116	22,490	26,900	29,801
Refined Aluminium	9,143	10,624	10,869	11,370	11,655

Source: Bureau of Mineral Resources.

§ 11. Uranium.

Uranium concentrate has been produced in Australia since 1954, but particulars of the quantity of U_3O_8 concentrate produced and its value are not available for publication. All U_3O_8 concentrate is exported overseas. During 1959, the principal producing centres were as follows:—

- (i) *Queensland.* Uranium ore was mined by opencut methods at Mary Kathleen, 33 miles east of Mt. Isa.
- (ii) *South Australia.* Uranium ore was mined by underground methods at Radium Hill, 289 miles north-east of Adelaide. A concentrate of heavy minerals is produced at the mine and this is railed to a treatment plant at Port Pirie for the chemical extraction of U_3O_8 concentrate.
- (iii) *Northern Territory.* At Rum Jungle, uranium-copper and copper ores were treated to produce U_3O_8 concentrate, copper concentrate and copper precipitate. Mining operations ceased at Rum Jungle in November, 1958, but sufficient ore was stockpiled to permit the continuation of full-scale production of uranium concentrate for some years.

During 1959, ore was mined in the South Alligator River area. Two companies opened treatment plants in that year.

Income from uranium mining is exempt from taxation in the hands of Australian producers. If the producer is an Australian company, such income is exempt from taxation in the hands of the shareholders when paid as dividends.

§ 12. Other Metallic Minerals.

1. *Tungsten.*—In recent years, Tasmania has been the principal State producing tungsten ores, scheelite being mined on King Island in Bass Strait and wolfram being mined in association with tin ores in the north-east part of the State. Because of low world prices, scheelite production on King Island ceased in August, 1958, but production was recommenced on a limited scale in 1960.

Particulars of the production of tungstic oxide contained in scheelite and wolfram concentrates produced during the years 1955 to 1959 are shown in the following table:—

TUNGSTIC OXIDE (WO_3) : CONTENT OF CONCENTRATES PRODUCED.
(Tons.)

State.	1955.	1956.	1957.	1958.	1959.
CONTAINED IN SCHEELITE CONCENTRATE.					
New South Wales	7	2	1	1	(a)
Queensland	(a)	3	1	..	..
Western Australia	5	..	..	..	..
Tasmania	948	985	948	477	..
Australia	960	990	950	478	(a)
CONTAINED IN WOLFRAM CONCENTRATE.					
New South Wales	1	2	(a)	..	..
Queensland	(b) 51	46	19	5	..
Tasmania	389	443	391	360	645
Northern Territory	81	101	49	7	8
Australia	522	592	459	372	653

(a) Less than half a ton.

(b) Estimated.

2. **Manganese.**—There has been considerable expansion of manganese ore production in recent years, due mainly to the relaxation of some provisions of the embargo on export of manganese ores. Western Australia, where activities were centred around Horseshoe in the Peak Hill District and Ant Hill and Mt. Sunday in the Pilbara District, continues as the main producing State. Northern Territory production is at Mucketty, near Renner Springs.

The following table shows the manganese content of metallurgical grade and the manganese dioxide content of battery and other grades of manganese ore produced during the years 1955 to 1959:—

MANGANESE : CONTENT OF MANGANESE ORE PRODUCED.

(Tons.)

Year.	Metallurgical Grade.				Battery and Other Grades.			
	In terms of Manganese (Mn) Content.				In terms of Manganese Dioxide (MnO ₂) Content.			
	N.S.W.	Q'land. (a)	W. Aust.	Australia.	N.S.W.	W. Aust.	N. Terr.	Australia.
1955 ..	443	35	19,984	20,462	403	..	975	1,378
1956 ..	436	140	25,280	25,856	371	179	914	1,464
1957 ..	391	557	33,956	34,904	385	186	668	1,239
1958 ..	516	3,181	21,926	25,623	511	195	2,113	2,819
1959 ..	620	4,350	35,996	40,966	907	162	1,406	2,475

(a) Estimated.

Zinc concentrates produced at Broken Hill and Rosebery contain manganese. However, in 1959, only 167 tons of manganese dioxide, recovered as a by-product of zinc refining at Risdon, near Hobart, were utilized.

3. **Other.**—The production in 1959 (1958 shown in parentheses) of other metallic minerals worthy of note was as follows:—

Antimony. The antimony content of antimony-bearing minerals produced was 1,280 tons (1,356 tons). Of this amount, 652 tons (664 tons) were in lead concentrate and 628 tons (692 tons) in 1,022 tons (1,116 tons) of antimony ore and concentrate.

Beryllium. Production of beryllium ore was 317 tons (247 tons), which came mainly from Western Australia where the Pilbara gold field was the main producing area. The beryllium oxide content of the ore was 3,587 units of 22.4 lb. (2,900 units).

Chromite. Production of chromite was 120 tons (776 tons) with an estimated chromic oxide content of 60 tons (386 tons). This production came from Rockhampton, in Queensland.

Tantalite-Columbite. The production of tantalite-columbite concentrate was 18,950 lb. (13,507 lb.) and the whole of this output came from Western Australia. The tantalum pentoxide and columbium pentoxide content of the concentrates was 8,499 lb. (6,736 lb.).

Other. A small quantity of native osmiridium was produced in Australia during 1959.

§ 13. Coal.

1. **Historical.**—Coal was probably the first of Australia's mineral products to be discovered, being reported from the neighbourhood of Newcastle in 1796. In the following year, outcrop coal was discovered at Coalcliff, 40 miles south of Sydney, and at the entrance to the Hunter River in the Newcastle district. By 1799, outcrop coal was being exported overseas from the latter field. All production was from the Newcastle district until 1857, when the first coal was produced from the southern field. The estimated production in 1830 was 4,000 tons and this increased to 30,000 tons in 1840, 70,000 tons in 1850, and 370,000 tons in 1860. In 1864, the first coal was discovered in the Greta-Cessnock-Maitland field which has since become the principal Australian source of gas coal.

The discovery of coal in Victoria dates from the year 1825, when the mineral was reported to have been found at Cape Paterson, but only a small quantity of coal was mined in Victoria prior to the opening of the State-owned mine at Wonthaggi in 1909. Present day Victorian production is obtained almost exclusively from this mine. In Victoria, brown coal was discovered at Lal Lal in 1857 and in the Latrobe Valley in 1874. Mining operations were first undertaken in 1889, but it was not until after the 1914-18 War that large scale mining began.

In Queensland, coal was first discovered near Ipswich in 1827 and the first colliery was established there in 1846. At Blair Athol, 240 miles west of Rockhampton, coal was discovered in 1864. This field is unique in that the field's total reserves of 200 million tons are available for opencut mining in a seam attaining a thickness of over 90 feet, the greatest thickness of black coal yet found in Australia.

The deposits of black coal at Leigh Creek, 377 miles north of Adelaide, were discovered in 1888 during dam-sinking operations. Small quantities of coal were mined in 1907 and 1917, but it was not until 1944 that extensive opencut mining operations began.

In Western Australia, coal was first discovered on the Irwin River in 1846, but the discovery of the Collie field in 1883 proved to be of far greater importance. This field is located 120 miles south of Perth and commercial mining began there in 1898.

There appear to be no reliable records of the earliest discoveries of coal in Tasmania. Coal was mined on the Tasman Peninsula to provide fuel for penal settlements in the vicinity and for Hobart, and mining continued there until about 1877. In 1824, coal was discovered at South Cape Bay near the most southerly part of the island. The most important deposit is the Mt. Nicholas-Fingal-Dalmyne (St. Marys) field in the north-east part of the State.

The mining of black coal on a large scale by opencut methods first began in Australia at Blair Athol in Queensland, where in 1937, the first year of production, 18,494 tons (0.2 per cent. of total Australian black coal production for that year) were produced. Opencut mining of black coal was introduced in New South Wales in 1940, in Western Australia in 1943, in South Australia in 1944, and in Tasmania in 1950. The output from opencuts rose slowly up to 1943 when 119,406 tons (0.8 per cent.) were produced, increasing rapidly from 1944 and reaching an output of 4,102,653 tons (21.1 per cent.) in 1952. Since then, however, the output from opencut mining has declined and in 1959 it was only 1,705,374 tons (8.4 per cent.). This decline has been mainly due to the closing down of large opencuts in New South Wales, as over-production of coal began to occur late in 1952.

2. Mine Production of Black Coal.—Production of black coal according to rank in the several States during the years 1955 to 1959 is set out in the following table. The tonnages produced by underground mining and opencut mining are also shown.

BLACK COAL : PRODUCTION.
(Tons.)

Particulars.	1955.	1956.	1957.	1958.	1959.
NEW SOUTH WALES.					
Bituminous	14,720,084	14,792,853	15,376,240	15,840,550	15,712,440
Sub-bituminous ..	16,313	17,312	13,996	10,398	..
Total	14,736,397	14,810,165	15,390,236	15,850,948	15,712,440
Underground mines ..	13,834,824	13,999,615	14,662,155	15,130,633	15,278,162
Opencut mines ..	901,573	810,550	728,081	720,315	434,278
VICTORIA.					
Total(a) ..	132,888	118,827	111,569	108,359	90,438

(a) Bituminous coal from underground mines.

BLACK COAL: PRODUCTION—*continued.*

(Tons.)

Particulars.	1955.	1956.	1957.	1958.	1959.
QUEENSLAND.					
Semi-anthracite ..	80,442	79,316	68,873	55,190	51,849
Bituminous ..	2,459,727	2,472,692	2,475,079	2,392,435	2,476,479
Sub-bituminous ..	206,996	182,651	157,625	132,748	66,059
Total ..	2,747,165	2,734,659	2,701,577	2,580,373	2,594,387
Underground mines ..	2,108,065	2,103,641	2,170,979	2,098,030	2,142,302
Opencut mines ..	639,100	631,018	530,598	482,343	452,085
SOUTH AUSTRALIA.					
Total(b) ..	455,287	481,463	608,913	755,022	690,374
WESTERN AUSTRALIA.					
Total(c) ..	903,792	830,007	838,661	870,882	911,435
Underground mines ..	599,662	621,467	689,882	779,394	800,856
Opencut mines ..	304,130	208,540	148,779	91,488	110,579
TASMANIA.					
Semi-anthracite ..	1,764	1,827	1,847	2,006	2,217
Bituminous ..	297,457	296,886	266,293	274,262	297,151
Total ..	299,221	298,713	268,140	276,268	299,368
Underground mines ..	283,743	280,332	253,108	260,100	281,310
Opencut mines ..	15,478	18,381	15,032	16,168	18,058
AUSTRALIA.					
Semi-anthracite ..	82,206	81,143	70,720	57,196	54,066
Bituminous ..	17,610,156	17,681,258	18,229,181	18,615,606	18,576,508
Sub-bituminous ..	1,582,388	1,511,433	1,619,195	1,769,050	1,667,868
Total ..	19,274,750	19,273,834	19,919,096	20,441,852	20,298,442
Underground mines ..	16,959,182	17,123,882	17,887,693	18,376,516	18,593,068
Opencut mines ..	2,315,568	2,149,952	2,031,403	2,065,336	1,705,374

(b) Sub-bituminous coal from an opencut mine.

(c) Sub-bituminous coal.

The principal producing centres during 1959 were as follows:—

- (i) *New South Wales.* The principal deposits worked were in the vicinity of Newcastle, Cessnock and Singleton (northern field), Lithgow (western field) and Wollongong (southern field). Tonnages mined in 1959 were: northern field, 9,338,280 tons; southern field, 4,811,754 tons and western field, 1,562,406 tons. All opencut coal was from the northern field.
The coal fields of New South Wales, predominantly bituminous, are the most important in Australia, in respect of the magnitude, quality and accessibility of reserves and the extent to which the deposits are being worked. Coal from the various seams differs in properties, coal from the Greta seam worked in the vicinity of Cessnock being particularly suitable for gas making, while coal from the Victoria tunnel, Dudley, Young Wallsend and Borehole seams, all of which are mined near Newcastle, have coking properties and are used in the steelworks. Coking coal is also obtained from the Bulli seam which is mined near Wollongong and in the Burragorang Valley. A multi-purpose coal is available in the Singleton area and steaming coals are mined around Newcastle, Lithgow, Cessnock and Wollongong.
- (ii) *Victoria.* Production of black coal in Victoria was restricted to the Gippsland district. The State Coal Mine at Wonthaggi was the main producer, and the remaining production came from small privately-owned mines.
- (iii) *Queensland.* The principal producing centres were Ipswich, 1,520,521 tons; Collinsville, 478,509 tons; Blair Athol, 175,573 tons; and Callide, 67,720 tons. Opencut coal was mined at Blair Athol, Callide, and Collinsville and the total coal won by this means was 17 per cent. of total production.
- (iv) *South Australia.* Coal was mined only at Leigh Creek, 377 miles north of Adelaide.
- (v) *Western Australia.* The only coal deposits which have been developed on a commercial scale are at Collie in the south-west of the State and all production during 1959 was from this source.
- (vi) *Tasmania.* Of the total production, 290,692 tons were produced from the Avoca and Mt. Nicholas-Fingal-Dalmaine fields in the north-east of the State. Of the remainder, 2,217 tons of semi-anthracite were produced at the Sandfly mine, near Hobart.

3. *Mine Production of Brown Coal.*—Brown coal is mined only in Victoria and production in recent years has been as follows:—1955, 10,112,206 tons; 1956, 10,559,801 tons; 1957, 10,740,989 tons; 1958, 11,643,629 tons; and 1959, 13,034,605 tons. In the past ten years, the output of brown coal has nearly doubled.

4. *Australia's Coal Reserves.*—The latest available estimate of the measured and indicated coal reserves of Australia is that prepared by the Coal and Lignites Panel of the Power Survey Sectional Committee of the Standards Association of Australia, and is shown in the following table. It should be noted that reserves can only be included in the "measured and indicated" categories when sufficient exploratory and testing work has been completed.

ESTIMATED COAL RESERVES OF AUSTRALIA, 1959.
(Million Tons.)

State.	Bituminous Coal.(a)	Sub-bituminous Coal.	Brown Coal. (Lignite).
New South Wales	8,650	800	..
Victoria	12	..	56,100
Queensland	749	..	..
South Australia .. .. .	..	144	230
Western Australia .. .. .	..	274	..
Tasmania	240	..	..
Australia	9,651	1,218	56,330

(a) Includes reserves of a small quantity of semi-anthracitic coal.

5. *Production in Principal Countries.*—The following table shows the production of the principal countries in 1958 and 1959 as published by the Mineral Resources Division of the United Kingdom Overseas Geological Surveys.

COAL : PRODUCTION IN PRINCIPAL COUNTRIES.
(⁰000 Tons.)

Country.	Black Coal.		Brown Coal and Lignite.	
	1958.	1959.	1958.	1959.
United States of America ..	383,205	383,837	2,167	2,482
U.S.S.R.	347,000	359,600	141,000	138,900
China	270,000	342,300	..	..
United Kingdom	215,825	206,114	..	..
Germany, Federal Republic ..	133,221	126,205	92,285	92,230
Poland	93,481	97,500	7,422	9,200
France	56,809	56,696	2,281	2,141
India	(a) 45,340	(a) 47,000	(b)	(b)
Japan	48,884	44,977	1,557	1,537
Union of South Africa	36,499	35,876	..	..
Czechoslovakia	23,554	24,727	55,940	52,855
Belgium	26,635	22,397	..	..
Australia	20,442	20,298	11,644	13,035
Saar	16,164	15,972	..	..
Spain	14,216	13,327	2,629	2,069
Netherlands	11,692	11,823	251	196
Canada	8,423	7,749	2,012	1,739
Germany, Eastern	2,858	2,796	211,574	211,391
Hungary	2,585	2,691	21,273	22,256
Yugoslavia	1,188	1,276	17,598	19,498
<i>Estimated World Total</i> ..	<i>1,800,000</i>	<i>1,860,000</i>	<i>600,000</i>	<i>620,000</i>

(a) Includes lignite.

(b) Included with black coal.

6. *Consumption of Coal in Australia.*—(i) *Black Coal.* Details of the production of black coal in Australia and its disposal are shown in the following table for the years 1955–56 to 1959–60.

BLACK COAL : PRODUCTION AND CONSUMPTION.
(⁰000 Tons.)

Particulars.	1955–56.	1956–57.	1957–58.	1958–59.	1959–60.
Production(a)	19,033	19,711	20,362	20,459	21,209
Imports	4	6	9	8	8
Total	19,037	19,717	20,371	20,467	21,217
<i>Consumption as Fuel—</i>					
Electricity Generation ..	5,922	6,363	6,941	7,131	7,398
Factories	3,101	2,977	2,991	3,122	3,169
Railway Locomotives(b) ..	2,963	2,690	2,217	2,050	2,002
<i>Bunker Coal—</i>					
Oversea Vessels	39	9	12	8	8
Interstate Vessels(c) ..	198	181	171	172	148
Total	12,223	12,220	12,332	12,483	12,725
<i>Consumption as raw material—</i>					
Gas works	2,031	1,946	1,779	1,761	1,727
Coke works	3,258	3,665	3,841	3,846	4,216
Total	5,289	5,611	5,620	5,607	5,943
Exports (Oversea)	194	545	836	645	1,088
Mine Washery Refuse and Dump Losses(c)	233	274	495	660	982
Balance—Unrecorded consumption, other purposes(d)	1,098	1,067	1,088	1,072	479
Grand Total	19,037	19,717	20,371	20,467	21,217

(a) Includes miners' and colliery coal.

(b) Government railways only.

(c) Only New South Wales available.

(d) Includes net change in stocks.

After the 1939-45 War, it was found necessary to augment local supplies of black coal in Australia by increasing imports. The quantity imported reached a post-war peak of 597,866 tons in 1950-51, but has since declined as production has expanded considerably. Since 1952-53, exports have exceeded imports by a wide margin; in 1959-60, exports of black coal were 1,087,844 tons and imports were 7,678 tons. These imports were of black coal for special purposes only.

(ii) *Brown Coal.* The table following shows the production and utilization of brown coal and the production of briquettes in Victoria for the years 1955-56 to 1959-60:—

BROWN COAL: PRODUCTION AND UTILIZATION, VICTORIA.
(⁰⁰⁰ Tons.)

Year.	Production.	Consumption as Fuel.			Consumption as Raw Material in Briquette Manufacture.	Briquettes Manufactured.
		Electricity Generation.	Briquette Factory.	Other Factories. (a)		
1955-56	10,383	6,517	843	1,191	1,686	634
1956-57	10,772	6,943	806	1,309	1,613	618
1957-58	10,869	7,020	810	1,297	1,619	626
1958-59	12,243	8,470	819	1,293	1,639	643
1959-60(b)	14,101	9,300	1,198	1,248	2,396	975

(a) Recorded consumption.

(b) Subject to revision.

The briquetting plant of the State Electricity Commission at Yallourn started operations in November, 1924, and the output, which in 1926 was 95,477 tons, had increased to 180,905 tons in 1930 and to 1,513,727 tons in 1960. Approximately two and a half tons of brown coal are required to make one ton of briquettes. In December, 1956, the Lurgi high pressure brown coal gasification plant at Morwell was opened. This plant is operated by the Gas and Fuel Corporation of Victoria and produces town gas which is sent to Melbourne through 103 miles of pipeline.

7. *Exports.*—The quantities and values of the overseas exports of Australian coal and of bunker coal for overseas vessels for the five years 1955-56 to 1959-60 are shown in the following table. These shipments were made mainly from New South Wales.

COAL: OVERSEA EXPORTS AND BUNKER, AUSTRALIA.

Year.	Oversea Exports.(a)		Bunker Coal for Oversea Vessels.	
	Quantity.	Value.	Quantity.	Value.
	Tons.	£A f.o.b.	Tons.	£A f.o.b.
1955-56	193,813	780,284	38,749	165,224
1956-57	545,101	2,196,044	9,065	44,116
1957-58	836,336	3,390,628	11,608	50,656
1958-59	645,249	2,676,042	8,187	37,808
1959-60	1,087,844	4,326,810	8,117	25,380

(a) Excludes bunker coal.

New South Wales, in addition to meeting requirements within the State, supplies considerable quantities of coal to other States and for export overseas. Of the total of 17,076,000 tons produced in 1959-60, 1,951,000 tons (11.4 per cent.) were exported interstate and 1,088,000 tons (6.4 per cent.) were exported overseas. The demand for bunker coal continues to decline and in 1959-60 a total of 149,000 tons (0.9 per cent.) of New South Wales production was supplied for interstate and overseas vessels.

8. Value at the Mine in New South Wales.—Particulars of the average values at the mine (or at screens or mine washeries where these are at a distance from the mine) of saleable coal for each district and for New South Wales as a whole are shown in the following table for the years 1955 to 1959. Saleable coal excludes miners' coal, coal consumed at the mines and refuse, etc., removed by the use of hand picking belts or at mine washeries. In calculating these values, coal won by producer consumers is also excluded, and in respect of stocks of coal held at grass by the Commonwealth Government only actual sales have been taken into account. No deduction has been made in respect of excise duty operative from 1st November, 1949.

**AVERAGE SELLING VALUE AT THE MINE PER TON OF SALEABLE COAL:
NEW SOUTH WALES.**

(s. d.)

Year.	Northern District.	Southern District.	Western District.	Average for State.
1955.. .. .	59 11	58 10	55 9	59 2
1956.. .. .	59 3	58 1	55 1	58 6
1957.. .. .	58 3	55 7	50 7	56 9
1958.. .. .	56 1	55 0	47 5	54 10
1959.. .. .	52 5	54 4	47 6	52 7

9. Values in New South Wales, United Kingdom and the United States of America.—The following table shows, for the years 1955 to 1959, average values of coal produced in New South Wales, Great Britain and the United States of America. The figures give an indication of changes in average value or price within each country but they do not necessarily show the relative levels as between the countries concerned.

PRODUCTION VALUES OF COAL PER TON: NEW SOUTH WALES, UNITED KINGDOM AND UNITED STATES OF AMERICA.

Country.	1955.	1956.	1957.	1958.	1959.
	s. d.	s. d.	s. d.	s. d.	s. d.
New South Wales—Bituminous(a)	59 2	58 6	56 9	54 10	52 7
United Kingdom—Deep mined(b)	68 0½	77 0	82 1	85 7	83 5½
United States of America—Bituminous and lignite(c) ..	\$ 4.50	\$ 4.82	\$ 5.08	\$ 4.86	\$ 4.77

(a) Average selling value at the mine per ton of 2,240 lb.; the figures relate to saleable coal and include excise duty. (b) Average value in sterling at the mine per ton of 2,240 lb. (c) Average value in United States currency at the mine per ton of 2,000 lb.

10. Employment in Coal-mines.—The number of persons employed, both above and below ground, in coal-mines in each State for each of the years 1955 to 1959 is shown in the following table:—

COAL-MINES: PERSONS EMPLOYED.(a)

Year.	New South Wales.	Victoria.		Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
		Black.	Brown.					
1955	19,260	687	1,502	3,634	280	1,432	367	27,162
1956	17,918	610	1,566	3,568	260	1,190	349	25,461
1957	16,622	561	1,579	3,493	223	1,145	301	23,924
1958	15,463	516	1,540	3,295	230	999	292	22,335
1959	13,445	401	1,519	3,172	251	1,095	314	20,197

(a) Average number of persons employed (including working proprietors) during whole year.

The year of maximum employment was 1926 when 31,774 persons were engaged in the coal-mines of Australia. Shortly after that year, the industrial depression and a prolonged stoppage of work on one of the principal fields of New South Wales during 1929 and 1930 seriously affected the figures of employment. After 1933, there was a gradual increase up to a level of about 23,000 which was maintained during the war years. There was a further increase after the war to 28,303 in 1952, but since then the number in employment has fallen again. In 1959, it was 20,197.

In New South Wales, during 1959, 13,483,000 tons of coal or 88.2 per cent. of the total output of underground coal, were loaded by machinery as compared with 1,101,000 tons (9.8 per cent.) in 1939, 3,089,000 tons (32.9 per cent.) in 1949, and 12,354,000 tons (81.6 per cent.) in 1958. Similar details for other States are not available, but machinery is used to a considerable extent in Western Australian mines and to a lesser extent in Queensland.

11. Production of Black Coal per Man-shift.—(i) *Underground Mines.* The following table shows particulars of estimated black coal output per man-shift worked, (a) at the coal face, and (b) by all employees, in respect of underground mines for each State concerned and for Australia for the years 1955 to 1959. These estimates have been calculated by the Joint Coal Board from data collected fortnightly in respect of coal production and the number of man-shifts actually worked. In South Australia, black coal is won only by opencut mining.

PRODUCTION OF BLACK COAL PER MAN-SHIFT: UNDERGROUND MINES.
(Tons.)

Year.	N.S.W.	Vic.	Q'land.	W. Aust.	Tas.	Australia.
PRODUCTION PER MAN-SHIFT WORKED AT COAL FACE.						
1955	10.76	2.13	6.61	4.74	6.54	9.24
1956	11.43	2.05	6.79	5.14	7.04	9.77
1957	13.19	2.01	7.13	5.88	7.60	11.02
1958	14.48	2.04	7.28	6.67	8.01	11.96
1959	18.07	2.10	7.53	7.60	7.34	14.13
PRODUCTION PER MAN-SHIFT WORKED BY ALL EMPLOYEES.						
1955	3.29	0.86	2.66	2.06	3.08	3.14
1956	3.55	0.83	2.65	2.35	3.41	3.28
1957	3.99	0.85	2.82	2.77	3.76	3.65
1958	4.35	0.89	2.90	3.02	3.91	3.95
1959	4.90	0.93	2.95	3.35	3.72	4.37

(ii) *Opencut Mines.* In the next table, the Joint Coal Board's estimates of production of black coal per man-shift worked by all employees in opencut mines are shown for the years 1955 to 1959. There are no opencuts producing black coal in Victoria.

PRODUCTION OF BLACK COAL PER MAN-SHIFT: OPENCUT MINES.
(Tons.)

Year.	N.S.W.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
1955	9.18	11.42	6.02	5.77	7.78	8.11
1956	10.36	13.06	6.72	6.37	8.56	9.19
1957	11.11	12.17	9.89	6.04	7.68	10.25
1958	11.31	13.63	11.46	6.78	10.42	11.47
1959	12.47	12.50	10.36	7.64	10.47	11.08

12. **Joint Coal Board.**—After the 1939–45 War, the Governments of the Commonwealth and New South Wales agreed to create jointly a coal authority with powers similar to, and in some respects wider than, those possessed under Commonwealth war-time legislation. Following this agreement, the Joint Coal Board was created and has functioned as from 1st March, 1947. Briefly, it is the responsibility of the Board to ensure that the coal of the State is conserved, developed, worked, distributed and used to the best advantage in the public interest, and to promote the welfare of the workers in the industry. Further details of the powers and functions of the Board are contained in Official Year Book No. 39, page 887.

§ 14. Coke and Other By-products from Coal.

1. **Coke.**—The production of metallurgical coke in Australia was limited to about 250,000 tons per annum prior to the 1914–18 War. This was below local requirements and necessitated an annual import of about 27,000 tons. By 1920, production had risen to more than 500,000 tons, by 1938–39 to 1,164,873 tons, and in 1959–60 it reached the record level of 2,376,097 tons. Imports exceeded exports prior to 1952–53, but in 1952–53 and later years there has been a net export surplus. In 1959–60, exports amounted to 75,502 tons while imports were 8,802 tons. Most of the tonnage imported is petroleum coke for use in the production of aluminium.

In addition to metallurgical coke referred to above (which is produced by specialized coke works), considerable quantities of coke are produced in gas works as a by-product of the manufacture of gas. Production in gas works in 1959–60 was 758,668 tons. To date, there has been no production of petroleum coke at Australian oil refineries.

In order to avoid duplication with coal values, the figures for coke have not been included in the general tables of mineral production in the early part of this chapter.

In the following table, particulars of the production of coke in coke works and gas works in Australia are shown for the years 1955–56 to 1959–60. The figures exclude output of coke breeze, which amounted to 343,808 tons in 1958–59 and 316,549 tons in 1959–60.

COKE PRODUCTION: AUSTRALIA.
(Tons.)

Industry..	1955–56.	1956–57.	1957–58.	1958–59.	1959–60.
Coke Works	2,058,426	2,234,458	2,295,737	2,210,621	2,376,097
Gas Works	1,031,135	954,756	831,615	815,464	758,668
Total	3,089,561	3,189,214	3,127,352	3,026,085	3,134,765

2. **Other By-products from Coal.**—In addition to coke, other products are obtained from the treatment of coal by coke and gas works. Some of the main items produced, principally in coke and gas works, during 1959–60 (1958–59 in parentheses) were: crude tar, 43,474,814 gallons (49,799,660 gallons); refined tar, 29,647,990 gallons (28,696,302 gallons); and ammonium sulphate, 104,861 tons (117,489 tons).

§ 15. Mineral Oils.

In 1960, the search for oil continued throughout the Australian mainland and in Papua-New Guinea. Some significant discoveries of gas were made. In two instances, some oil was associated with gas shows.

In the Roma area, Queensland, Pickanjinne No. 1 well tested a flow of 6.2 million cubic feet of gas per day. Cabawin No. 1 well, near Tara, Queensland, blew out while drilling below 9,000 feet, and some oil was observed in association with gas. The well was quickly brought under control and drilling is continuing.

In Papua, Ichi No. 11 well was drilled to a total depth of 10,042 feet. A gas flow of about 31 million cubic feet per day was tested from an interval in the Mesozoic section. No oil shows were recorded.

The Petroleum Search Subsidy Act 1959 continues to attract applications for subsidy for stratigraphic drilling and geophysical surveys. For particulars of the subsidy, see paragraph (d), *Search for Oil*, page 1088.

Drilling programmes were undertaken in all States and Territories with the exception of South Australia and Tasmania.

In the following table, details are given of the footage drilled in the search for oil in the Commonwealth of Australia and the Territories of Papua and New Guinea during the years 1956 to 1960:—

FOOTAGE DRILLED IN THE SEARCH FOR OIL.

Source: Bureau of Mineral Resources.(a)

State or Territory..	1956.	1957.	1958.	1959.	1960.
	Feet.	Feet.	Feet.	Feet.	Feet.
New South Wales	4,608	8,729	16,357	17,422	6,169
Victoria	22,660	12,244	2,439	8,395	14,682
Queensland	92	15,343	5,081	30,328	54,841
South Australia	16,966	13,995	6,239	12,637	..
Western Australia	61,271	26,961	30,383	36,020	17,193
Northern Territory .. ..	..	..	..	2,458	1,373
Australia	105,597	77,272	60,499	107,260	94,258
Territories of Papua and New Guinea	17,500	25,636	29,350	13,389	10,042

(a) Based on figures obtained from State Departments of Mines and the Northern Territory Mines Branch.

§ 16. Sulphur.

1. **Mine Production of Sulphur.**—There is no production of elemental sulphur (brimstone) in Australia but, although sulphur is itself non-metallic, considerable quantities are contained in certain metallic minerals produced.

It should be noted that large quantities of the lead and zinc concentrates produced are exported and the sulphur they contain is not available for utilization in Australia.

The following table shows the sulphur content of the metallic minerals produced during 1959 from which sulphur was subsequently recovered:—

SULPHUR: CONTENT OF METALLIC MINERALS PRODUCED, 1959.

(Tons.)

Mineral in which contained.	N.S.W.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Lead Concentrate	48,042	..	..	(a) 266	(a) 2,160	50,468
Lead-copper Concentrate ..	..	..	..	..	(a) 841	(a) 841
Pyrite Concentrate	16,577	8,946	(a) 27,616	24,207	29,535	106,881
Zinc Concentrate ..	124,273	(a) 8,518	..	..	19,564	152,355
Total ..	188,892	17,464	(a) 27,616	24,473	52,100	310,545

(a) Estimated.

The principal producing centres during 1959 were:—

(i) *New South Wales.* All the sulphur produced in New South Wales was contained in lead and zinc concentrates produced at Broken Hill and in lead, zinc and pyrite concentrates produced at Captain's Flat.

(ii) *Queensland.* In Queensland, sulphur was contained in zinc concentrate milled at Mt. Isa and in pyrite concentrate produced at Mt. Morgan. No sulphur was recovered in Australia from the zinc concentrate.

(iii) *South Australia.* A pyrite concentrate containing sulphur was produced from ore mined at Nairne, 22 miles east of Adelaide.

(iv) *Western Australia.* Sulphur was recovered from pyrite concentrates produced at Norseman and at Kalgoorlie. Although both these concentrates are auriferous, gold was recovered only from that produced at Kalgoorlie. A small quantity of sulphur was contained in lead concentrates produced in the Northampton mineral field.

(v) *Tasmania.* A pyrite concentrate was recovered at Mt. Lyell after the prior separation of the copper sulphide mineral. Recoverable sulphur was also contained in lead, lead-copper and zinc concentrates milled at Rosebery, but only that contained in zinc concentrate was recovered in Australia.

The following table shows for the years 1955 to 1959 the sulphur content of minerals from which sulphur was subsequently recovered:—

SULPHUR: CONTENT OF METALLIC MINERALS PRODUCED.

(Tons.)

State.	1955.	1956.	1957.	1958.	1959.
New South Wales	140,120	187,087	207,604	197,736	188,892
Queensland	47,515	(a) 15,103	24,544	(a) 14,647	17,464
South Australia (b) ..	13,790	31,248	32,721	32,129	27,616
Western Australia	23,892	25,295	25,420	22,635	24,473
Tasmania	39,066	47,339	52,185	54,472	52,100
Australia ..	264,383	306,072	342,474	322,619	310,545

(a) Partly estimated. (b) Estimated.

2. **Production of Sulphuric Acid.**—The principal use of sulphur is in the manufacture of sulphuric acid, which is produced in all States and in the Northern Territory. Most of this is used for fertilizer manufacture, although small quantities are used in the rubber and chemical industries and in the preparation of uranium concentrates. Sulphur contained in lead concentrate is used for acid manufacture at Port Pirie and sulphur in zinc concentrates is used at Risdon. Pyrite concentrate is used as a source of sulphur for acid manufacture at Cockle Creek, near Newcastle, and at Port Kembla in New South Wales, and at Melbourne, Brisbane, Adelaide, Perth and Fremantle. However, half the sulphuric acid produced in Australia is made from imported elemental sulphur. The next table shows, for the years 1956 to 1960, the Australian production of sulphuric acid and the quantity of sulphur in the acid produced from various sources.

SULPHUR USED IN SULPHURIC ACID PRODUCTION: AUSTRALIA.

(Tons.)

Item.	1956.	1957.	1958.	1959.	1960.
<i>Production of Sulphuric Acid (Mono.)</i>	<i>841,225</i>	<i>971,976</i>	<i>1,009,064</i>	<i>1,000,458</i>	<i>1,109,751</i>
<i>Sulphur in Sulphuric Acid (Mono.) produced from—</i>					
Sulphur (Elemental)(a) ..	146,816	156,413	162,881	153,195	179,752
Zinc Concentrate	29,061	35,025	38,524	39,933	42,946
Lead Concentrate	16,090	18,272	21,339	19,619	21,573
Pyrite	76,780	100,111	99,216	103,596	104,406
Spent Oxide	4,643	4,744	4,301	3,655	3,814
Other Materials	1,694	3,271	3,702	7,151	10,396
Total Sulphur Content..	275,084	317,836	329,963	327,149	362,887

(a) All imported.

§ 17. Non-metallic Minerals.

1. **Asbestos.**—The production of asbestos in Australia at present is only sufficient to meet about one-sixth of domestic requirements. Production in recent years has been of two types, chrysotile (white) and crocidolite (blue). The deposits of chrysotile, however, are relatively small and widely scattered, and during 1959, it was produced mainly at Nunyerry and Lionel in Western Australia and at Baryulgil in New South Wales. Production of crocidolite, which is confined to the Hammersley Ranges in Western Australia, about 200 miles south-east of Roebourne, has expanded greatly in recent years. Large scale operations were commenced there in 1943 at Wittenoom Gorge, and reserves are estimated at two million tons.

The production of chrysotile and crocidolite in Australia during the five years 1955 to 1959 is shown in the following table:—

PRODUCTION OF ASBESTOS : STATES.
(Short Tons of 2,000 lb.)

Year.	Chrysotile.			Crocidolite.
	New South Wales.	Western Australia.	Australia.	Australia.(a)
1955	661	308	969	5,025
1956	697	852	1,549	8,160
1957	676	1,556	2,232	12,438
1958	712	1,543	2,255	13,313
1959	726	707	1,433	16,442

(a) Produced in Western Australia only.

2. **Clays.**—Statistics of clay production in Australia are not entirely satisfactory, mainly because of differences between States in the classification of the various types of clays. In addition, the statistics are incomplete as some clays are outside the normal administrative control of some State Mines Departments. In the following table, the recorded production of the main types of clays produced in each State of Australia is shown for the year 1959.

PRODUCTION OF CLAYS : STATES, 1959.
(Tons.)

Type.	New South Wales.	Victoria.	Queensland	South Australia.	Western Australia.	Tasmania.	Australia.
Bentonite and Bentonitic Clay ..	56	..	96	..	133	..	285
Brick Clay and Shale ..	1,893,440	21,122,000	289,931	441,354	(a) 398,000	153,880	4,298,605
Cement Clay and Shale ..	121,460	(b)	(b)	29,165	22,321	(b)	(c) 172,946
Damouritic Clay ..	..	..	..	491	..	..	491
Fireclay, n.e.i. ..	89,988	29,803	8,443	20,766	26,202	..	175,202
Fuller's Earth ..	136	..	..	..	..	..	136
Kaolin ..	23,888	6,088	20	4,593	1,190	1,195	36,974
Stoneware Clay ..	64,345	..	116	36,725	..	..	101,186
Tile Clay ..	132,111	(b)	(b)	(b)	(b)	11,039	(c) 143,150
Other Clays ..	9,259	159,682	(b)	(b)	(b)	23,324	(c) 192,265

(a) Estimated.

(b) Not available.

(c) Incomplete.

3. **Gypsum.**—There are very extensive deposits of gypsum in Australia, but only the more accessible and easily worked deposits have been exploited. These deposits lie in four main regions, (a) in New South Wales stretching from around Griffith to near Broken Hill, (b) in the north-west corner of Victoria, the south-west corner of New South Wales and adjoining parts of South Australia, (c) in South Australia on both sides of St. Vincent Gulf and extending to Lake MacDonnell in the west, and (d) between Perth and Kalgoorlie in Western Australia. The South Australian deposits are the most important and more than half the total Australian production of gypsum in 1959 came from that State, where the main centres of production are Stenhouse Bay on Yorke Peninsula and Lake MacDonnell.

The building industry is the main user of the gypsum produced in Australia. The greatest part is used in the manufacture of plaster and most of the remainder in cement manufacture. A small amount is also used as fertilizer. A considerable quantity is exported, mainly to New Zealand for use in the plaster industry, and to New Caledonia for use in nickel smelting operations.

The production of gypsum in Australia is set out in the following table for the five years 1955 to 1959.

PRODUCTION OF GYPSUM : STATES.

(Tons.)

Year.	New South Wales.	Victoria.	South Australia.	Western Australia.	Australia.
1955	136,356	83,190	204,522	39,946	470,014
1956	94,203	78,895	263,136	27,121	463,355
1957	101,491	68,647	274,945	33,353	478,436
1958	90,664	72,010	306,749	35,515	504,938
1959	101,143	81,101	296,816	37,731	516,791

4. **Limestone.**—Limestone is quarried in all States, being used mainly for the manufacture of cement. Other uses are in agriculture, in the steel industry as a metallurgical flux, and in the chemical industry.

The recorded statistics of limestone production in each State of Australia for the years 1955 to 1959 are shown in the following table. Details of limestone produced for use as building or road material are not included.

PRODUCTION OF LIMESTONE(a) : STATES.

('000 Tons.)

Year.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
1955 ..	1,690	714	(b)	987	(b)	206	3,998
1956 ..	1,700	813	(b)	1,076	(b)	179	4,264
1957 ..	1,897	846	(b)	1,135	(b)	205	4,572
1958 ..	2,061	859	(b)	1,220	(b)	235	5,324
1959 ..	2,056	1,120	(b)	1,017	(b)	230	5,305

(a) Includes shell and coral.

(b) Not available for publication, included in total for Australia.

5. **Magnesite.**—The major sources of magnesite at present are deposits at Fifield and Thuddungra in central New South Wales. Most of the output of magnesite in Australia is used for refractory purposes, particularly in the steel industry, and small amounts are used in chemical, paper, glass, rubber, and ceramic industries. Particulars of the production of magnesite in each State for the years 1955 to 1959 are set out in the table below.

PRODUCTION OF MAGNESITE : STATES.

(Tons.)

Year.	New South Wales.	Queensland.	South Australia.	Western Australia.	Australia.
1955	57,262	..	412	..	57,674
1956	63 050	..	831	804	64,685
1957	83,271	..	202	..	83,473
1958	69,030	20	341	..	69,391
1959	59,777	..	790	19	60,586

6. *Mica*.—Almost all Australian production of muscovite mica comes from the Northern Territory, though small quantities of inferior grades have been obtained from most of the States. The centre of mica production in the Northern Territory is the Harts Range area, about 130 miles north-east of Alice Springs, where mining has been carried on intermittently since 1892, and the Plenty River field, 50 miles north-east of Harts Range.

The Commonwealth Mica Pool, details of which are given on page 1094 of Official Year Book No. 46, purchased, prior to 31st December, 1960, all mica which was in accordance with certain specifications. The following table shows the quantity of muscovite mica produced in Australia during the five years 1955 to 1959:—

MUSCOVITE MICA PRODUCTION.

(lb.)

Particulars.	1955.	1956.	1957.	1958.	1959.
New South Wales—					
Scrap	20,160	..	..	15,680	7,000
Queensland—					
Scrap .. ..	..	..	..	21,728	..
Northern Territory—					
Trimmed	56,649	28,837	36,713	31,391	33,665
Crude and Film .. ..	..	..	..	35,840	170,000
Scrap .. ..	..	..	40,600	11,088	11,000

7. *Salt*.—Salt is obtained in Australia by evaporation of saline lakes and clay pans. Production satisfies local requirements and provides a considerable surplus for export. Recorded production in South Australia (the chief producing State) is shown in the following table for the years 1955 to 1959. Estimates of total Australian production are also shown.

SALT PRODUCTION.

('000 Tons.)

Particulars.	1955.	1956.	1957.	1958.	1959.
South Australia	291	332	339	336	358
Estimated Australian Total ..	369	409	428	430	468

8. *Other Non-metallic Minerals*.—(i) *General*. Many other non-metallic minerals are produced in Australia in considerable quantities, and are listed separately in the following paragraphs.

(ii) *Barite*. The principal centre producing first-grade barite is at Orparinna in the North Flinders Range in South Australia. The production of barite in Australia during 1959 was 6,214 tons, of which 6,145 tons came from South Australia and 60 tons from New South Wales.

(iii) *Diatomite*. Production of diatomite is carried on mainly in the eastern States of Australia. In 1959, 5,089 tons were produced, of which New South Wales produced 4,409 tons, mainly at Coonabarabran and Barraba.

(iv) *Dolomite*. Up to 1950, New South Wales was the main producer of dolomite, but in that year a large deposit at Ardrossan in South Australia, which now produces over 90 per cent. of the total output, was opened up. In 1959, South Australia produced 151,401 tons; New South Wales, 3,776 tons; Tasmania, 2,907 tons; and Queensland, 2,000 tons, making an Australian total of 160,084 tons.

(v) *Felspar*. The main demand for felspar comes from the glass and ceramic industries. Most of the Australian production of felspar comes from New South Wales, which produced 4,700 tons out of the Australian total of 6,750 tons in 1959. Of the remainder, 1,396 tons came from Western Australia and 654 tons from South Australia.

(vi) *Gemstones.* (a) *Opals.* Most of the opals won in recent years came from the Coober Pedy and Andamooka fields in South Australia which produced opals worth £422,000 in 1959. Other production in 1959 was from Lightning Ridge in New South Wales, valued at £23,000, and the Quilpie district in Queensland, valued at £1,000.

(b) *Sapphires.* In 1959, sapphires produced in the Inverell District of New South Wales were valued at £2,000 and production from the Anakie Field in Central Queensland was valued at £1,000.

(vii) *Silica.* The production of silica is not recorded in Victoria and production recorded in all other States may not be complete. The output of silica, which includes glass sand, quartz, quartzite, sand, sandstone, and silicious abrasives, but does not include production for use as building or road material, was 125,918 tons in New South Wales; 13,607 tons in South Australia; 7,140 tons in Western Australia; 6,519 tons in Tasmania; and 1,594 tons in Queensland; giving a total of 154,788 tons recorded for those States during 1959.

(viii) *Sillimanite.* In 1959, 3,633 tons of sillimanite were produced in Australia, of which 3,587 tons came from South Australia.

(ix) *Talc.* The Australian output of talc (including steatite) was 16,376 tons in 1959. South Australia produced 11,239 tons, Western Australia 4,048 tons, and New South Wales 1,089 tons.

(x) *Other.* Other non-metallic minerals produced in Australia in small quantities during 1959 were fluorspar, garnet concentrate, glauconite, industrial diamonds, foundry loam, mineral pigments, pebbles for grinding, perlite, phosphate rock, pyrophyllite, and serpentine.

§ 18. Oversea Trade in Minerals and Mineral Products.

Particulars of the quantity and value of the principal mineral and mineral product items imported into and exported from Australia during the years 1957 to 1959 are shown in the following table:—

IMPORTS AND EXPORTS OF PRINCIPAL MINERALS AND MINERAL PRODUCTS: AUSTRALIA.

Item.	Unit of Quantity.	Quantity.			Value. (£A'000 f.o.b. Port of Shipment.)		
		1957.	1958.	1959.	1957.	1958.	1959.
IMPORTS.							
Aluminium, Refined—							
Ingots	ton	8,374	14,813	19,268	2,199	3,356	3,883
Plates, Sheets and Strips	"	1,881	2,317	2,555	907	1,026	1,068
Foil	"	2,193	2,409	2,788	1,512	1,711	1,803
Asbestos	short ton	33,888	38,888	38,330	2,377	2,493	2,502
Gold, Unrefined Bullion	fine oz.	159,998	160,232	136,674	2,479	2,502	2,136
Iron and Steel—							
Bars and Rods	ton	17,860	24,798	9,035	2,394	2,750	1,940
Ferro-alloys	"	14,579	13,335	23,989	2,061	1,486	1,859
Plate and Sheet (Plain)	"	15,404	15,918	9,119	2,860	3,354	2,919
Tinplate	"	144,199	66,059	50,348	14,991	6,699	4,774
Petroleum Oils—							
Crude	'000 gals.	2,118,236	2,441,916	2,603,377	57,574	67,778	69,391
Enriched Crude	"	142,908	95,302	35,559	6,156	4,079	802
Kerosene	"	112,789	97,403	109,649	6,280	5,337	6,002
Lubricating Oil	"	40,165	41,665	49,391	5,831	5,759	6,582
Spirit	"	183,132	207,500	223,405	11,940	12,565	13,228
Phosphate Rock	'000 tons	1,035	1,501	1,327	2,622	-3,894	3,689
Sulphur	ton	120,277	202,421	170,770	1,459	2,254	1,855
Titanium Oxide	"	6,172	6,996	5,472	1,383	1,482	1,016

IMPORTS AND EXPORTS OF PRINCIPAL MINERALS AND MINERAL PRODUCTS: AUSTRALIA—*continued.*

Item.	Unit of Quantity.	Quantity.			Value. (£A'000 f.o.b. Port of Shipment.)		
		1957.	1958.	1959.	1957.	1958.	1959.
EXPORTS.							
Asbestos	short ton	11,329	10,433	12,974	1,212	933	1,245
Coal	ton	759,095	823,925	794,190	3,056	3,408	3,178
Copper, Blister	"	19,131	14,471	16,225	5,004	3,156	4,375
Gold, Refined	fine oz.	783,814	128,550	128,052	12,275	2,111	2,004
Iron and Steel—							
Bars and Rods	ton	21,595	28,588	39,198	1,094	1,420	1,895
Plate and Sheet, Plain	"	143,629	85,444	141,313	8,008	5,169	8,468
Plate and Sheet, Galvanized	"	86,378	58,938	58,488	6,961	4,911	4,975
Scrap	"	178,255	156,978	182,985	5,010	2,800	3,404
Lead—							
Ore and Concentrate(a)	"	91,236	83,984	90,797	5,813	4,776	5,034
Lead-Silver Bullion	"	47,618	58,068	53,021	7,085	6,104	5,498
Pig	"	160,589	155,730	138,448	19,368	13,729	12,025
Petroleum Oils—							
Spirit	'000 gals.	36,133	80,171	32,682	2,857	4,814	2,140
Diesel Oil	"	21,294	43,081	93,008	1,465	2,511	5,305
Residual and Furnace Oil	"	156,027	202,052	146,869	8,258	9,131	6,484
Rutile Concentrate	ton	119,052	75,615	80,938	8,617	4,630	3,609
Silver, Refined	'000 fine oz.	3,672	4,876	3,001	1,505	1,911	1,224
Zinc—							
Ore and Concentrate	ton	323,654	261,279	193,254	5,201	2,749	2,472
Refinery Type Shapes	"	37,092	37,938	41,606	4,033	3,165	3,962

(a) Includes lead-copper concentrate.

Considerable quantities of metallic ores, concentrates, slags and residues are exported from Australia for refining overseas. The following table shows the quantities of such items exported during 1959 and their principal metallic content as estimated by assay:—

PRINCIPAL METALLIC CONTENTS OF SPECIFIED ORES AND CONCENTRATES, ETC., EXPORTED FROM AUSTRALIA DURING 1959.

Ores and Concentrates, etc.	Quantity Exported. ton.	Metallic Contents—Estimated from Assay.						
		Copper.	Gold.	Lead.	Silver.	Tin.	Tungstic Oxide.	Zinc.
		ton.	fine oz.	ton.	fine oz.	ton.	ton.	ton.
Copper—								
Ore and Concentrate	73,286	18,209	5,523	..	187,326	3	..	..
Copper—Lead Dross and Speiss	6,006	1,278	11	3,591	330,930	..	..	..
Other Slags and Residues	45	31	..	..	..	..	..	..
Blister	16,225	16,091	..	..	..	..	..	..
Lead—								
Ore and Concentrate(a)	90,797	570	12,407	62,228	1,791,962	..	..	6,109
Slags and Residues	1,014	..	..	489	301	8	..	..
Lead-Silver Bullion	53,021	..	..	52,650	4,241,700	..	..	..
Tin Ore and Concentrate	42	..	..	..	..	32	..	..
Tungsten—								
Scheelite Ore and Concentrate	145	..	..	..	..	..	103	..
Wolfram Ore and Concentrate	993	..	..	..	..	..	717	..
Zinc—								
Ore and Concentrate	193,254	..	..	1,383	55,300	..	..	101,738
Slags and Residues	9,046	7	..	1	..	..	..	6,277
Total Metallic Contents .. ..	..	36,186	17,941	120,342	6,607,519	43	820	114,124

(a) Includes lead-copper concentrate.

§ 19. Government Aid to Mining, and Mineral Control.

1. *Aid to Mining.*—(i) *Commonwealth.* (a) *Assistance to the Gold Mining Industry.* For particulars, see para. 9, page 1052.

(b) *Assistance to the Copper Mining Industry.* For particulars, see para. 8, page 1061.

(c) *Income Taxation Concessions.* For particulars of income taxation concessions to the gold, copper and uranium mining industries, see pages 1053, 1061 and 1071 respectively. Further information is given in a booklet entitled *Income Tax for the Mining Industry*, issued by the Commissioner of Taxation.

(d) *Search for Oil.* The Commonwealth Government has encouraged the search for oil in Australia, Papua and New Guinea and considerable sums have been spent during recent years in geological and geophysical surveys and in drilling operations.

The Bureau of Mineral Resources, in close co-operation with the Mines Departments of the States, has continued regional geological and geophysical surveys throughout the Commonwealth. In 1957, the Commonwealth introduced the Petroleum Search Subsidy Act 1957, whereby stratigraphic drilling operations were subsidised to the extent of 50 per cent. of cost. In 1959, the Petroleum Search Subsidy Act 1959 increased the nature of operations for which subsidy was offered, to include all types of geophysical surveys and off-structure drilling operations. Under the 1957 Act, £500,000 was set aside each year for a period of four years, and under the 1959 Act, £1,000,000 was set aside for each of three years, ending in 1962.

Under these Acts, 49 operations had been approved for subsidy to the end of 1960. For particulars of oil search operations in 1960, see § 15, Mineral Oils, page 1080.

(e) *Rewards for Discovery of Uranium Ore.* The Commonwealth Government's offer to pay rewards up to a maximum of £25,000 for the discovery of any one deposit of uranium ore was withdrawn as from 31st March, 1961.

(f) *Mica Pool.* The Commonwealth Mica Pool ceased purchasing mica on 31st December, 1960, and the Committee of Management was abolished on the same day. The Pool will continue to sell mica while stocks last.

(g) *Bureau of Mineral Resources, Geology and Geophysics.* The Bureau of Mineral Resources, Geology and Geophysics has sections dealing with geology, geophysics, mining engineering, petroleum technology and mineral economics. The geological section provides geologists to conduct all surveys required in Commonwealth Territories, and makes detailed and regional surveys in conjunction with or by arrangement with the State Mines Departments, surveys of possible oil-fields in Australia and New Guinea, surveys of mines for which financial assistance is sought, and investigations of deposits of radio-active minerals. The geophysical section conducts investigations throughout Australia and New Guinea connected with the search for metalliferous radio-active and other mineral deposits; investigations connected with exploration for coal, oil and water; regional magnetic and gravity surveys; engineering and military geophysics; and the operation of geophysical (magnetic and seismic) observatories. The Bureau works in close co-operation with the Mines Departments of the States. It has assumed full responsibility for geological and geophysical surveys in Commonwealth Territories, but suitable arrangements have been made to ensure that the local Administrations have the necessary technical advice directly available to them.

(h) *Ore-dressing and Mineragraphic Investigations.* These investigations are conducted by the Commonwealth Scientific and Industrial Research Organization as required by the industry. Ore-dressing investigations are carried out at the Ore-Dressing Laboratory, situated in the Department of Mining, University of Melbourne, and at the Ore-Dressing Laboratory, Kalgoorlie, situated at the School of Mines. The Mineragraphic Investigations Section is located in the Geology Department, University of Melbourne.

These two groups of laboratories perform complementary services—the Mineragraphic Investigations Section assesses microscopically the state of dispersion and the mineral association of ore bodies, while the Ore-Dressing Laboratories investigate the composition of ores and provide advice on suitable methods for their full-scale treatment. Much of this research is carried out on a co-operative research basis with the mining industry.

(i) *Department of Territories.* For particulars of the Northern Territory Administration, see paragraph (h) under section. (ii). *States* following.

(ii) *States. (a) General.* In addition to free assays and determinations of rocks and minerals carried out for prospectors by the Mines Departments of the States and Territories, technical officers of these departments provide advice to the mining and allied industries where required, carry out field examinations of mining prospects, advise on exploration and development, select sites for water supply, and in general give a free technical service to the mining industry.

(b) *New South Wales.* State aid to assist metalliferous mining may consist of grants to assist the prospecting and/or mining for gold and minerals, and for the purchase, removal and installation of mining plant or equipment. A quantity of mechanical equipment is also available in several localities for hire at reasonable rentals to prospectors and small mine operators, and District Inspectors have geiger counters and scheelite detectors which are loaned to approved persons.

(c) *Victoria.* Loans may be granted to assist prospecting and development or the purchase of machinery for gold mining. The Mines Department has stamp batteries in different parts of the State to crush ore for prospectors at nominal rates. Small mining companies may avail themselves of these facilities. Drilling with diamond, rotary and percussion drills is carried out by the Mines Department for mining companies and for general mineral exploration. A survey of the State's underground water reserves is in progress, in conjunction with the opening up of town water supplies from underground sources.

(d) *Queensland.* Various forms of assistance to mining are made available by the Queensland Department of Development and Mines. Grants are made from the Consolidated Revenue Fund for use on construction and maintenance of roads in mining areas. Advances are made from the Gold Mining Encouragement Fund for mining development work. This assistance is restricted to gold mines and advances are repayable from proceeds of the mine, if any. From the Assistance to Metalliferous Mining Fund, plant, such as jackhammers, compressors and pumps, is purchased and maintained. Such plant is made available on hire, the rental payments being credited back to the fund. Prospecting assistance is made available in approved cases, the rates being £2 10s. a week for a single man and £3 10s. a week for a married man with dependants. This is not repayable. From the Advances to Mining Fund, assistance by way of subsidy is advanced for mine development. Such is repayable from proceeds of the mine. The Department also maintains a treatment works for tin ores, etc., at Irvinebank, an assay office at Cloncurry, and diamond-drilling plants in several parts of the State. The Venus State mill at Charters Towers is available for the treatment of gold-bearing ores.

(e) *South Australia.* The Department of Mines provides the following services and facilities to the mineral industry:—(i) Hire of boring plant and mining equipment, boring and testing of mineral deposits, financial subsidies in approved cases for prospecting and mining development, development of sub-surface water supplies for farming pastoral, irrigation and mining purposes, and purchase of basic metal ores from prospectors; (ii) geological examination of mineral deposits, water supply, dam foundation and drainage problems, guidance on mining legislation, and publication and issue of geological bulletins and maps. It also provides, through the Australian Mineral Development Laboratories, chemical and metallurgical analytical and assay investigation, testing and treatment of ores and minerals, petrographic, mineragraphic and radiometric determinations. Pilot scale metallurgical and chemical treatment plants are maintained and operated for the development of mineral extraction processes.

(f) *Western Australia.* Assistance is given to prospectors to the extent of £5 a week south of the 26th parallel of latitude, and of £6 a week north of that parallel; also provision is made of some tools required for prospecting.

There are twenty State batteries operating throughout the gold-fields for the treatment of ore from prospectors and small mine-owners, at a nominal charge. A cartage subsidy is also granted to such operators sending ore to State batteries for treatment.

Provision is made for loans to mine-owners who require assistance to develop mines. The Government also has a drilling scheme, financing mine-owners on a £1 for £1 basis.

(g) *Tasmania.* The Department of Mines provides financial assistance to mining lessees for the purchase of plant and machinery, for sinking, repairing or dewatering of shafts, for construction of dams and water races, for testing and proving a deposit of any mining product, for developmental work and for diamond and other types of drilling. The Department has available for hire percussion and diamond drills for exploration, as well

as a complete plant for small shaft sinking and tunnelling. Other assistance is rendered to the industry by geological and engineering advice and through ore-dressing research into metallurgical recoveries and the selection and design of treatment plant.

(h) *Northern Territory.* In order to encourage the development of the mining industry, the Northern Territory Administration has erected Government batteries at Tennant Creek, Hatches Creek, and Maranboy for the treatment of miners' ores. The Tennant Creek battery is the only one now in operation. After reconstruction, it was re-opened for public crushing in October, 1958, and has been fully employed since that date. The re-opening of the Hatches Creek and Maranboy batteries will depend on the revival of small scale wolfram and tin mining, respectively, in these areas. The Administration is erecting another battery at Mount Wells, near Burrundie, to treat tin, gold and lead ores. It is expected that this battery will commence crushing towards the end of 1961. The crushing charges are subsidized by Government grants. In addition, the Administration provides cartage subsidies and financial advances to encourage miners to carry out developmental work. Roads and water supply services are provided and maintained for mines under active development throughout the Territory.

2. *Control of Minerals.*—(i) *Control of Exports of Metals and Minerals.* Certain metals and minerals produced in Australia are subject to export control for one or more of the following reasons:—

- (a) the necessity of conserving resources;
- (b) the inadequacy of local production to fulfil domestic demand;
- (c) the strategic importance of the minerals;
- (d) to encourage processing of the minerals in Australia prior to export.

Minerals and metals subject to export control include iron ores and concentrates; pig-iron; manganese ores; beryllium ores and concentrates; lithium ores and concentrates; minerals containing uranium; and minerals, including monazite, containing thorium. Mixed concentrates of beach sand minerals are prohibited exports but the major constituent minerals (rutile, zircon and ilmenite) may be exported.

(ii) *Radio-active Minerals.* During 1953, Commonwealth Legislation was enacted to set up an Atomic Energy Commission which is responsible, in an overall sense, for the production and utilization of uranium in Australia. This Act, the Atomic Energy Act 1953–1958, supersedes the Atomic Energy (Control of Materials) Act of 1946, but retains a provision of that Act which provides for control of substances which could be used for production or use of atomic energy. It gives the Commonwealth power to acquire such substances in their natural state and in waste materials from mining operations, to carry on mining and other operations necessary for the recovery of such substances, and to pay compensation for such acquisition. It also gives the Commonwealth power to obtain possession of such substances held by any person.

Further information concerning the Atomic Energy Commission appears in Chapter XXX.—Miscellaneous.

CHAPTER XXVIII.

DEFENCE.

§ 1. Department of Defence.

1. **Functions and Organization.**—(i) *Functions.* Subject to the authority of Cabinet, the Minister and Department of Defence are responsible for the following functions.—

The formulation and general application of a unified defence policy relating to the Defence Forces and their requirements, including:—(a) co-operation in British Commonwealth and regional defence and the defence aspect of the Charter of the United Nations; (b) the supply aspect of defence policy, including the review of production programmes and capacity; (c) the scientific aspect of defence policy; and (d) the financial requirements of defence policy and the allocation of funds made available.

The defence aspect of armistice and peace terms, control commissions, and forces of occupation.

Matters of policy or principle and important questions having a joint Service or inter-departmental defence aspect.

The defence aspect of questions relating to the organization and machinery for—(a) co-operation in British Commonwealth defence; (b) co-operation in regional security, including obligations under the United Nations Charter; (c) higher direction in war; and (d) higher direction of the Services.

The Commonwealth War Book, which is a summary of national plans for an emergency as developed in departmental war books.

The administration of inter-Service organizations, such as the joint intelligence machinery.

The defence aspect of:—the strength and organization of the forces, higher appointments in the Services, honours and awards.

Advice on the military aspect of civil defence.

(ii) *Organization, higher defence machinery and the control of the joint Service machinery.*

The joint Service and inter-departmental advisory machinery of the Department consists of various committees headed by the Defence Committee, the Chiefs of Staff Committee, the Defence Administration Committee and the Joint War Production Committee.

The Defence Committee is a statutory body consisting of the Secretary, Department of Defence, who is Chairman, the Chairman of the Chiefs of Staff Committee, the Chiefs of Staff of the three Services, the Secretary, Prime Minister's Department, the Secretary, Department of External Affairs, and the Secretary to the Treasury. Its function is to advise the Minister for Defence on—

(a) The defence policy as a whole and the co-ordination of military, strategic, economic, financial and external affairs aspects of defence policy,

(b) matters of policy or principle and important questions having a joint Service or an inter-departmental defence aspect, and

(c) such other matters having a defence aspect as are referred to the Committee by or on behalf of the Minister for Defence.

The Chiefs of Staff Committee meets regularly for the discussion of technical matters on a joint service basis, and is responsible in peace for the preparation of strategic appreciations and military plans. The functions of the Defence Administration Committee, in addition to the regular review of the progress of the Defence Programme, include the co-ordination and integration of Service activities and the improvement of methods and organization. The function of the Joint War Production Committee is, briefly, to examine the relation between strategic plans and their requirements to ensure that the war potential for them exists. The major committees subordinate to the Defence

Committee and/or the Chiefs of Staff Committee comprise the Principal Administrative Officers Committee (Maintenance and *Matériel*), the Principal Administrative Officers Committee (Personnel), the Defence Research and Development Policy Committee, the Joint Planning Committee, the Joint Intelligence Committee and the Joint Administrative Planning Committee.

(iii) *Defence Business Board.* The Defence Business Board furnishes advice on business matters of common interest to the three Services, or important subjects on which the collective advice of the Board is desired from the business aspect, with a view to promoting efficiency and economy in the execution of the Defence Programme. The Board comprises businessmen who serve in a part-time honorary capacity and consists of an independent chairman and deputy chairman and the business advisers of the three Service Departments.

2. *Basis of Current Defence Policy.*—The main strategic factors affecting current defence policy may be summarized as follows.—

(i) Because of the nuclear deterrent, the outbreak of limited or local wars is more likely than a global or full-scale war.

(ii) In any likely war in the foreseeable future, Australia's interests will most likely be centred in South-East Asia, which is its first line of defence.

(iii) The defence of South East Asia and Australia is to be sought through the concept of collective security. The greatest importance is attached, in Australia's defence policy and planning, to participation in the collective defence arrangements developed in its area of strategic interest—SEATO, ANZUS and British Commonwealth arrangements for defence co-operation. Such arrangements are entirely in accord with the United Nations Charter.

3. *The Defence Programme.*—(i) *Programme.* The level of national defences must be adequate to enable Australia to meet its regional and home defence responsibilities. The present three year defence programme which runs until June, 1962, is based on a comprehensive review of defence policy which was undertaken in 1959. It is designed to meet present strategic requirements and has, as its primary aim, the continual improvement of the ability of the Australian forces to act swiftly and effectively, in co-operation with allied forces, to meet limited or local war situations. Emphasis is placed in the programme on two major points: first, to have the forces, both regular and citizen, more readily available than they have been in the past; secondly, to provide them with modern equipment, in greater quantity and more varied types. Equipment used by the Australian forces will be standard or compatible, as far as possible, with that used by United States forces, with whom they are associated in defence arrangements.

Primary emphasis is placed in the Royal Australian Navy on anti-submarine capability and training, and provision exists for the acquisition of aircraft, vessels, and other equipment suitable for this purpose. Two new type anti-submarine frigates have already been delivered to the R.A.N. By agreement with the Royal Navy, modern submarines are maintained on the Australian station for effective anti-submarine training. For particulars of the operational fleet, *see* page 1096.

Important decisions relating to Army organization which will improve considerably the availability and operational effectiveness of the Australian Army, both regular and citizen forces, have been taken and are being implemented. The Army is now composed entirely of volunteers, and the combat elements are being based on the new pentropic division (*see* page 1097). The programme for modernizing army equipment is being put into effect, and further modern weapons, vehicles, aircraft, and marine craft are being obtained.

For the R.A.A.F., the Mirage III. aircraft with airframes and engines manufactured to a substantial extent in Australia has been selected as the future replacement of the present Avon Sabre fighter aircraft. Previous decisions taken to strengthen elements of the R.A.A.F. are being implemented.

In the field of research and development, Australia is making its principal contribution through the Long Range Weapons Establishment which is a joint United Kingdom-Australian effort for the testing of guided weapons. The executive authority for this project is the Department of Supply (*see* p. 1101).

(ii) *Financial.* Details of defence expenditure for 1959-60 and the allocation of the Defence Vote for 1960-61 are set out in the two tables which follow:—

DEFENCE EXPENDITURE, 1959-60.

(£'000.)

Service or Department.	Maintenance.	Capital Material Requirements, Machinery, Plant and Equipment.	Capital Buildings, Works and Acquisition of Sites.	Total Expenditure.
Defence	1,168	42	21	1,231
Navy	32,647	8,430	1,216	42,293
Army	52,571	9,626	3,536	65,733
Air	44,335	13,471	4,043	61,849
Supply	13,726	2,663	4,411	20,800
Other Services	1,204	1	474	1,679
Total	145,651	34,233	13,701	193,585

DEFENCE VOTE, 1960-61.

(£'000.)

Service or Department.	Maintenance.	Capital Material Requirements, Machinery, Plant and Equipment.	Capital Buildings, Works and Acquisition of Sites.	Total Expenditure.
Defence	1,256	55	31	1,342
Navy	31,755	11,317	1,644	44,716
Army	50,926	11,344	3,369	65,639
Air	45,669	13,494	4,115	63,278
Supply	14,712	3,342	3,167	21,221
Other Services	1,343	84	530	1,957
Total	145,661	39,636	12,856	198,153

(iii) *Personnel Strengths.* The personnel strengths of the Services at 31st December, 1960, are shown in the following table:—

PERSONNEL STRENGTHS: SERVICES, DECEMBER, 1960.

Category.	Navy.	Army.	Air Force.	Total.
Permanent Forces	(a) 10,519	20,702	15,006	46,227
Citizen Forces (Volunteers)	(b) 7,842	25,765	748	34,355
Total Forces	18,361	46,467	15,754	80,582

(a) Excludes 28 cadet midshipmen not on pay.

(b) Excludes 185 nominal reservists.

4. **Australian Forces Serving in Malaya.**—Australia has participated with the United Kingdom and New Zealand in the Commonwealth Strategic Reserve in Malaya since it was first established in 1955. At the request of the Government of the Federation of Malaya, the Strategic Reserve continues to be stationed in that country and to assist in border security operations against the communist terrorists.

§ 2. Naval Defence.

1. **Administration.**—Under the provisions of the Constitution, the Minister of State for the Navy administers the Department of the Navy. Under the Naval Defence Act 1910–1952, the Royal Australian Navy is administered by the Naval Board. The Naval Board consists of the Minister as Chairman, four Naval Members, and the Secretary, Department of the Navy.

2. **Historical.**—Prior to 1901, naval defence systems were organized under the State Governments. Information regarding these systems is given in Official Year Book No. 2, page 1084. An outline of the development of Australian naval policy is given in Official Year Books No. 3, page 1060, and No. 12, page 1012. An account of the building of the Australian Navy, its cost, the compact with the Imperial Government, and other details appears in Official Year Book No. 15, pages 921–23. The growth and the activities of the Royal Australian Navy during the 1939–45 War are shown in Official Year Book No. 36, pages 1023–27.

3. **Link with the Royal Navy.**—Strong links with the Royal Navy are maintained by a constant exchange of officers for extended tours of duty, and by a full exchange of information and ideas. A liaison staff is maintained by the Royal Australian Navy in London, and by the Royal Navy in Australia. Advanced training and staff courses in the United Kingdom are provided by the Royal Navy for Royal Australian Navy officers.

A liaison staff is also maintained by the Royal Australian Navy in Washington and a comprehensive exchange of information is provided by this link. Staff courses in the United States are also attended by officers of the Royal Australian Navy.

4. **Strength of the Fleet.**—Ships in commission at June, 1961. were.—

H.M.A. Fleet.

- 1 Aircraft carrier.
- 4 Destroyers.
- 3 Fast anti-submarine frigates.
- 5 Frigates.
- 4 Auxiliary vessels.

5. **Personnel.**—The authorized establishment strength of the Royal Australian Navy has been pegged at 12,800 comprising 1,427 officers and 11,373 ratings. In December, 1960, the actual strength of the Naval Forces, permanent and reserves, serving full time, was 1,170 officers and 8,912 ratings, including 124 native ratings of the Papua and New Guinea Division of the Royal Australian Navy. 68 cadet midshipmen were undergoing training at the Naval College. 14 officers and 296 ratings were serving in the Women's Royal Australian Naval Service. Reserve strength comprised 1,095 officers and 6,812 ratings, serving part-time.

6. **Women's Royal Australian Naval Service.**—The established personnel strength of the W.R.A.N.S. is 16 officers and 370 ratings. They serve in the shore establishments in the following categories: Radio-operators, Regulating, Writers, Stores Assistants, Sick Berth Attendants, Motor Transport Drivers, Wrans (Radar Plot), Cooks and Stewards.

7. **Reserve Training.**—Members of the Royal Australian Naval Reserve carry out limited training at night or on Saturday afternoons, plus 13 days' annual continuous training; engagements are for three years and pay is approximately that of the Permanent Naval Forces. Special courses and service of longer duration are available to selected members. The Royal Australian Fleet Reserve consists of former ratings of the R.A.N., R.N., or a Dominion Navy whose obligation to perform training is determined by the length of their permanent naval service.

8. **Fleet Air Arm.**—The Fleet Air Arm of the Royal Australian Navy maintains two front line squadrons, embarked in the operational carrier, H.M.A.S. *Melbourne*. This ship is fitted with an angled deck, steam catapult and mirror deck-landing sights. Training and support squadrons for H.M.A.S. *Melbourne's* Sea Venom jet all-weather fighter and ground attack aircraft and Gannet turbo-prop anti-submarine aircraft are based at the Naval Air Station H.M.A.S. *Albatross* at Nowra, New South Wales.

9. **Ship Construction and Repair.**—Under the present ship construction programme, two anti-submarine frigates are completing at Australian dockyards and will commission in July, 1961. Two more have been launched and are fitting out.

In addition, six coastal minesweepers are being purchased in the United Kingdom and a survey vessel will be constructed at the State Dockyard, Newcastle.

10. **Naval College.**—The Royal Australian Naval College, transferred in 1930 from Jervis Bay, A.C.T., to Flinders Naval Depot, was re-established at Jervis Bay in January, 1958, and was commissioned as H.M.A.S. *Creswell*.

11. **Training Establishments.**—Flinders Naval Depot, at Crib Point, Westernport, Victoria, is the basic training establishment for ratings in the permanent forces, while several advanced training schools are established in Sydney, New South Wales. The Apprentice Training Establishment at Quaker's Hill, New South Wales, provides secondary education as well as training in trades in which the lads will be employed during their service in the Royal Australian Navy. Junior recruits training was introduced at Fremantle, Western Australia, during the latter half of 1960. A large proportion of instructional hours is devoted to school subjects, and the remaining instructional time is basic naval training and disciplinary training, so that on completion of training, ratings will be ready to undergo technical and specialist courses.

12. **The Australia Naval Station.**—Defined limits of the Australia Station are as follows.—

Eastern.—From 3° 30' North, 169° East, south to 1° South, thence east to 170° East, thence south along this meridian to 30° South, thence to 45° South, 160° East, thence south along this meridian.

Northern.—From 3° 30' North, 169° East, west to 125° East, thence south to the Coast of Celebes, thence west along the Coast of Celebes to 120° East, thence south along this meridian to 10° South, thence west to 78° East.

Western.—From 10° South, 78° East, south along this meridian.

13. **Ship's Service Outside Australian Waters.**—During the year ended June, 1961, H.M.A. Ships *Melbourne*, *Vendetta*, *Vampire*, *Voyager*, *Quiberon*, *Quickmatch* and *Queenborough* served on the Far East Station as units of the Commonwealth Strategic Reserve with headquarters at Singapore. H.M.A. Ships *Diamantina*, *Swan* and *Gascoyne* also made visits beyond the limits of the Australia Station.

14. **Papua and New Guinea Division of the Royal Australian Navy.**—A Papua and New Guinea Division of the Royal Australian Navy, consisting of native ratings, was inaugurated in July, 1951, as a separate part of the Permanent Naval Forces for employment in Papua and New Guinea and adjacent waters.

15. *Ships of the Royal Australian Navy.*—The following ships were in commission or in reserve in June, 1961:—

SHIPS OF THE ROYAL AUSTRALIAN NAVY, JUNE, 1961.

Vessel.	Description.	Displacement.
In Commission—		Tons.
<i>Melbourne</i>	Aircraft Carrier	15,680
<i>Anzac</i>	Destroyer	2,436
<i>Vampire</i>	"	2,789
<i>Vendetta</i>	"	2,789
<i>Voyager</i>	"	2,801
<i>Queenborough</i>	Frigate	2,020
<i>Quiberon</i>	"	2,020
<i>Quickmatch</i>	"	2,020
<i>Diamantina</i> (Training)	"	1,489
<i>Gascoyne</i> (Training)	"	1,489
<i>Swan</i> (Cadet Training)	"	1,060
<i>Barcoo</i> (Survey)	"	1,477
<i>Warrego</i> (Survey)	"	1,060
<i>Kimbla</i> (Trials)	Boom Defence Vessel	733
<i>Bass</i> (Survey)	General Purpose Vessel	250
<i>Banks</i> (Fishery Protection)	" " "	250
<i>Paluma</i> (Survey)	Coastal Survey Vessel	240
In Reserve—		
<i>Sydney</i>	Aircraft Carrier	15,740
<i>Arunta</i>	Destroyer	2,012
<i>Tobruk</i>	"	2,436
<i>Warramunga</i>	"	2,012
<i>Culgoa</i>	Frigate	1,537
<i>Quadrant</i>	"	2,020
<i>Wagga</i> (Training)	Ocean Minesweeper	768
<i>Koala</i>	Boom Working Vessel	768
<i>Kangaroo</i>	" " "	768
<i>Karangi</i>	" " "	768
<i>Kookaburra</i>	" " "	533
<i>Sprightly</i>	Fleet Tug	570
Under Dockyard Control—		
<i>Parramatta</i> (a)	Frigate (completing) .. ..	..
<i>Yarra</i> (a) .. .. .	" " .. ..	..
<i>Derwent</i>	" (fitting out) .. ..	..
<i>Stuart</i> .. .. .	" " .. ..	..

(a) Commissions July, 1961.

§ 3. Military Defence.

1. *State Systems.*—A detailed historical account of the Australian defence forces prior to federation appears in Official Year Book No. 2, pages 1075–80. See also Official Year Book No. 12, page 999.

The strength of the military forces of the States at 31st December, 1900 (the eve of federation), exclusive of cadets, reservists, and rifle club members, was—New South Wales, 9,338; Victoria, 6,335; Queensland, 4,028; South Australia, 2,932; Western Australia, 2,696; Tasmania, 2,024; total for Australia, 27,353.

2. *Commonwealth Systems.*—(i) *General.* Under the terms of the Constitution Act 1900, the Commonwealth took over control of defence matters in March, 1901. The growth of the Commonwealth Military Forces may be considered to have taken place in a number of phases. For particulars of the phases which cover the period from the welding together of the military forces of the States into one homogeneous Army in 1902 up to the re-establishment of the Military Board and the organization of Commands after World War II., see Official Year Book No. 46 and earlier issues.

The National Service Training Scheme was introduced in August, 1951. Full-time training under the scheme was suspended in November, 1959, and part-time training obligations with the Citizen Military Forces ended in June, 1960.

In 1960, a complete re-organization of the Australian Military Forces was undertaken. The re-organization involved the reshaping of the Army by—

- (a) the adoption of a pentropic divisional organization,
- (b) increasing the Regular Field Force,
- (c) reducing the command, training, and administrative structure, and
- (d) converting the Citizen Military Forces to a wholly volunteer force and eliminating national service training.

(ii) *Composition of the Australian Military Forces.*

- (a) *The Australian Regular Army.* Current planning provides for a Regular Army with a strength of 21,000.
- (b) *The Citizen Military Forces.* Planned strength of the C.M.F. is 30,000 volunteers. Members are required to volunteer for service overseas in the event of war.
- (c) *Strength of the Australian Military Forces.* The effective strength of the Australian Military Forces at 30th April, 1961, was—Australian Regular Army (including 597 Pacific Islanders and 581 Women's Services), 20,240; Citizen Military Forces, 26,786.

(iii) *Organization.* Army Headquarters is responsible for the policy and control of the Australian Military Forces. The Military Board consists of the Minister for the Army, President, the Chief of the General Staff, five Military Members, and the Secretary, Department of the Army. After World War II., Command Headquarters were established to implement Army Headquarters policy and to command and administer those units placed under their authority. Command Headquarters are established in the mainland capital cities of Australia. The geographic extent of Commands is as follows:—

Northern Command.—The State of Queensland and a small part of northern New South Wales and the Territory of Papua and New Guinea.

Eastern Command.—The State of New South Wales, less those parts included in Northern, Southern, and Central Commands.

Southern Command.—The State of Victoria, the State of Tasmania, and part of southern New South Wales.

Central Command.—The State of South Australia, plus a portion of south-western New South Wales.

Western Command.—The State of Western Australia.

Northern Territory Command.—The Northern Territory.

The basic formation in the re-organized Army is the pentropic division, which is designed to have improved tactical capabilities with increased mobility and flexibility under conditions of tropical warfare. The pentropic division consists of five battle groups, each under the direct command of the divisional headquarters. Each battle group has, as its basic component, an infantry battalion of larger size and greatly increased fire-power compared with the infantry battalion which existed prior to the re-organization. In addition to the strengthened infantry battalion, each battle group includes supporting elements such as armour, artillery, engineers, signals, etc.

Two pentropic divisions have been raised. One division consists of two A.R.A. and three C.M.F. battle groups, and the other of five C.M.F. battle groups.

(iv) *Military Training Systems.* (a) *The Staff College.* Until 1938, the training of staff officers was carried out in the various Military Districts throughout Australia, except in cases where officers were selected from time to time to attend courses abroad. In 1938, an Australian Command and Staff School, located in the original Officers' Mess at Victoria Barracks, Sydney, was established. Between 1939 and 1945, the training of staff officers was carried out under varying conditions by different schools in accordance with the changing needs of the war.

Early in 1946, the Staff School (Australia) was established at Seymour, Victoria, and redesignated the Staff College in conformity with other Empire training establishments for training officers for command and staff appointments. The College was later moved to Queenscliff, Victoria, where it is at present situated. As from 1961, the course is to be of eighteen months' duration and will be held biennially. The normal intake is 50 students, and, on successfully completing the course, an officer is awarded the symbol "psc". The course is designed to train selected officers for Grade II. appointments in all branches of the staff in peace and war, and to prepare them to assume, after experience, command and higher staff appointments. Each course includes, among the students, Army representatives of the United Kingdom and other Dominions and countries.

Included in the 1961 course are students from the United Kingdom, Canada, New Zealand, India, Pakistan, Ceylon, United States of America, Thailand, Malaya, Indonesia and Burma. Vacancies on each course are reserved also for officers who may be nominated by the Royal Australian Navy, the Royal Australian Air Force and the Commonwealth Public Service.

In order to ensure common standards in tactical doctrine and staff and command training throughout the British Commonwealth, liaison is maintained with other Staff Colleges, and to this end there is also a reciprocal exchange of instructors between the United Kingdom and Australia. An instructor is now also provided by New Zealand.

(b) *The Royal Military College.* The Royal Military College was established in 1911 at Duntroon in the Australian Capital Territory for the purpose of providing trained officers for the Army. The conditions of entry are laid down in the Royal Military College Regulations and provide for admission by "normal" and "service" entries. The length of the "normal" course is four years; "service" entry cadets attend for three years. While at the College, Staff Cadets are wholly maintained, and, in addition, receive payment increasing with each year of the course. The course of instruction is organized into military and civil departments, and the instructional staff comprises officers of the Army and civilian professors. On graduation, cadets are appointed lieutenants in the Australian Regular Army. The College also trains New Zealand cadets for commissions in the New Zealand Permanent Forces under an agreement made with the Government of that Dominion.

(c) *The Officer Cadet School.* The Officer Cadet School was established in 1951 at Portsea, Victoria, for the purpose of speeding up the production of junior regimental officers for the Australian Regular Army. Serving members of the Australian Regular Army, the Citizen Military Forces, National Servicemen, and civilians between the ages of 18 and 23 years are eligible to apply for entrance. A special entry provides for candidates up to 25 years. The course is of 44 weeks' duration, and on graduation cadets are appointed second-lieutenants in the Australian Regular Army. Graduates normally proceed to further training at the Army School of the Arm and Service to which they have been allotted, before being posted to regimental duties.

(d) *The Women's Royal Australian Army Corps School.* The W.R.A.A.C. School, established in 1952 at Mildura, Victoria, moved to Mosman, New South Wales, in 1958. It has three wings, one whose primary task is the training of officer cadets for the W.R.A.A.C., one for the training of non-commissioned officers at all levels and for other special courses, and one which is a basic training wing. The officer cadets are selected from eligible applicants, who may be serving members between 21 and 32 years of age, or civilians between 21 and 30 years of age. The course is of six months' duration and, on graduation, cadets are appointed lieutenants in the Women's Royal Australian Army Corps.

(e) *The Army Apprentices' School.* The Army Apprentices' School was opened in 1948 at Balcombe, Victoria, with the aim of training youths as skilled tradesmen for the Australian Regular Army, and to form a background for an Army career with prospects of promotion. The course is open to boys between the ages of 15 and 17 years and provides training in a number of highly skilled trades. A three-year course of intensive theoretical and practical work at the Apprentices' School is followed by one year in an appropriate Army workshop or technical unit. At the end of their third year, boys are given their

Army trade test and also take the Victorian Apprenticeship Commission's final grade public examinations, which ensures that they will be accepted as qualified tradesmen in civil life when they eventually leave the Army. In addition to trade training, the Apprentices' School provides general educational facilities up to the School Leaving Standard.

(f) *Other Schools.* Army Schools have been established for the major Arms and Services for the purpose of training officers and other ranks in the up-to-date techniques of their own Arm or Service, to qualify them for promotion requirements, and to produce trained instructors. Courses at Army Schools are conducted for members of both the Australian Regular Army and the Citizen Military Forces.

The following Army Schools have been established:—

Jungle Training Centre.	Royal Australian Army Service Corps School.
Armoured School.	Royal Australian Army Medical Corps School of Army Health.
School of Artillery.	Royal Australian Army Ordnance Corps School.
School of Military Engineering.	Royal Australian Electrical and Mechanical Engineers' Training Centre.
Transportation Training Centre.	School of Music.
School of Military Survey.	Air Support Unit (Army Component).
School of Signals.	
Infantry Centre.	
Army Intelligence Centre.	

(v) *Women's Services.* In July, 1950, approval was given for the enlistment of women into the Australian Regular Army on a limited scale. Enlistment into the Royal Australian Army Nursing Service commenced in November, 1950, and into the Australian Women's Army Corps early in 1951. In February, 1951, the Royal Australian Army Nursing Service became a Corps and was designated the Royal Australian Army Nursing Corps (R.A.A.N.C.). During June, 1951, the Australian Women's Army Corps was redesignated the Women's Royal Australian Army Corps (W.R.A.A.C.). The Women's Services in the Australian Regular Army now comprise two Corps only—

- (a) Royal Australian Army Nursing Corps,
- (b) Women's Royal Australian Army Corps.

Women's Services are incorporated in the Citizen Military Forces and one company of the Women's Royal Australian Army Corps is located in each Command excluding Northern Territory Command. Companies of the Royal Australian Nursing Corps are located in each Command excluding Northern Territory Command.

(vi) *Forces Overseas.* At 30th April, 1961, 1,317 members of the Australian Military Forces were serving in Malaya and Singapore as part of the British Commonwealth Far East Strategic Reserve.

(vii) *History of the Australian Military Forces in War.* Members of the Commonwealth Military Forces have taken part in the following campaigns:—the South African War, 1902; the First World War, 1914–1918; the Second World War, 1939–1945; Korea, 1950–1954; Malaya, 1955–1960.

(viii) *The Australian Cadet Corps.* The Australian Cadet Corps is a voluntary organization. It serves as a training ground to provide, to some extent, the future officers and non-commissioned officers of the Australian Military Forces, and, as such, occupies a foremost position in the scheme of national defence. The Australian Cadet Corps, however, does not form part of the Australian Military Forces. School Cadet units are raised at educational establishments throughout the Commonwealth, except in the Northern Territory. The minimum age for enrolment is the year in which the applicant reaches the age of 14 years, and cadets, who in the large majority of schools receive a free issue of A.M.F. pattern uniform, may remain in the Cadet Corps until they cease to be pupils of the educational establishments concerned. A few units retain their own pattern school uniform and are not issued with A.M.F. pattern uniforms. Provision is made for the appointment of officers, cadet under-officers, warrant and non-commissioned officers on an authorized establishment scale from within school units. School Cadet units may be, and in many cases are, affiliated with Citizen Military Force units.

The establishment of the Corps is 35,500 all ranks, and at 31st March, 1961, comprised 299 School Cadet units with a posted strength of 34,953, all ranks.

§ 4. Air Defence.

1. **General.**—A statement regarding the preliminary steps taken in connexion with the development of air defence appears in Official Year Book No. 18, page 610, and one on the expansion and development and zones and operations of the Royal Australian Air Force during the 1939–45 War, in Official Year Book No. 36, page 1027.

2. **Administration and Organization.**—The Department of Air is responsible for policy for the organization and control of the Royal Australian Air Force. The Air Board is responsible, subject to approved policy, for the control and administration of the Royal Australian Air Force, and is constituted as follows:—Chief of the Air Staff, Air Member for Technical Services, Air Member for Personnel, Air Member for Supply and Equipment, Citizen Air Force Member, and the Secretary, Department of Air.

Headquarters of the Royal Australian Air Force is in Canberra. A R.A.A.F. representative is located in London and Air Attachés at Paris and Washington.

The units of the Royal Australian Air Force are organized into the following two functional Commands throughout Australia and its Territories.

Operational Command. Operational Command is responsible for the command of operational units and the conduct of their operations within Australia and its territories.

Support Command. Support Command is responsible for the command of training units, supply and servicing units; recruitment and individual training in the R.A.A.F.; and supply and servicing, including technical servicing of the R.A.A.F., in Australia.

The organization of the Royal Australian Air Force includes the following types of formations and units.—

Formations. These comprise a headquarters unit to control the activities of a number of units at one location. Each formation has a base squadron which provides common services to all units at the location.

Flying Squadrons. These bomber, fighter, transport and maritime reconnaissance squadrons undertake the operational and, in conjunction with operational conversion units, the operational training flying commitments of the R.A.A.F.

Operational Conversion Units. These units specialize in operational conversion training of aircrew for the bomber and fighter squadrons.

Aircraft Depots. These units specialize in major overhauls, etc., of aircraft and equipment and relieve flying unit ground staff of these commitments.

Stores Depots. Stores and equipment ordered by the R.A.A.F. are delivered to these centrally located depots for distribution to units.

Flying Training, Ground Training, Navigation, Radio and Air Armament Training Units. These units specialize in the aircrew and ground staff training required by the R.A.A.F.

Airfield Construction Squadrons. These units specialize in the construction of R.A.A.F. aerodromes and associated buildings and works services.

Royal Australian Air Force Academy. This unit is the training college for officer cadet entrants to the R.A.A.F.

Telecommunications Units. These units are responsible for the communications services of the R.A.A.F.

R.A.A.F. Staff College. This college trains specially selected R.A.A.F. officers for higher staff and command posts.

3. **Aircraft.**—Some of the aircraft which are at present being used in the Royal Australian Air Force are: bomber squadrons—Canberra; fighter squadrons—Avon Sabre; transport squadrons—Dakota, Hercules and Metropolitan; maritime reconnaissance squadrons—Neptune; Army liaison squadron—Bell Helicopter and Cessna; training—Avon Sabre, Canberra, Dakota, Meteor, Vampire and Winjeel.

4. **Establishment.**—The Royal Australian Air Force establishment comprises an operational element and a support element consisting of 16,597 personnel. The support element includes headquarters and administrative staffs and the organization for training, supply and maintenance.

5. **Strength of Royal Australian Air Force.**—At 1st March, 1961, the strength of the Royal Australian Air Force was as follows:—Permanent Air Force, 14,680; Citizen Air Force, 613; and General Reserve, 14,427.

6. **Women's Royal Australian Air Force.**—At 1st March, 1961, the Women's Royal Australian Air Force had an establishment of 842 and an enlisted strength of 665 (not included in the R.A.A.F. strength in para. 5, above). Details of enlistment and service in the W.R.A.A.F. are given in Official Year Book No. 44, page 1058.

7. **Operations in Korea and Malaya.**—Reference to R.A.A.F. participation in operations in Korea and Malaya is contained in Official Year Book No. 39, pages 1251–2 and in subsequent issues.

§ 5. War Gratuities.

Reference is made in earlier issues of the Official Year Book to the payments made under the provisions of the War Gratuity Acts 1920 (*see* No. 15, p. 930) and the War Gratuity Act 1945–1947 (*see* No. 41, p. 999).

§ 6. Department of Supply.

1. **General.**—Reference to the creation of the Department of Supply is contained in Official Year Book No. 39, page 1257. On 24th April, 1958, the Department of Defence Production was abolished and the functions previously undertaken by that Department were transferred to the Department of Supply. References to those functions and to the activities of the various branches and establishments of the former Department of Defence Production are contained in Official Year Book No. 44, pages 1059–61.

The Minister for Supply administers the Supply and Development Act 1939–1948, except insofar as it concerns the building, repair and maintenance of merchant ships and the building, extension, operation, repair and maintenance of shipyards, drydocking and repair facilities for merchant ships.

2. **Functions of the Department.**—The Department of Supply is responsible for the following functions.

Defence research and development, including the operation of the Joint United Kingdom—Australia Long Range Weapons Project, and Australian research and development through the Weapons Research Establishment, the Aeronautical Research Laboratories, the Defence Standards Laboratories and associated establishments.

Manufacture, acquisition, provision and supply of munitions (including aircraft) and miscellaneous goods and services required by the defence forces.

Arrangement of contracts for the supply of goods and the performance of services.

Operation and management of factories, workshops and undertakings concerned in the production of munitions (including aircraft), clothing, canvasware and other defence goods.

Acquisition, maintenance and disposal of strategic materials.

Planning and establishment of manufacturing facilities for the production of munitions and other defence goods.

Investigation and development of Australian sources of supply in connexion with defence.

Sale or disposal of surplus Commonwealth property other than land or buildings.

Provision of Commonwealth transport facilities outside the Australian Capital Territory.

Provision and control of stores required for or in connexion with matters administered by the Department of Supply, and general storage for other Departments as required.

Provision of security services within the Department.

Arrangements for ascertaining costs and the control and limitation of profits in connexion with the production of munitions and other defence goods.

3. Research and Development Branch.—(i) *General.* The Research and Development Branch, which is under the control of the Chief Scientist, is responsible for research and scientific development in relation to war *matériel* including the operation of the Joint United Kingdom—Australia Long Range Weapons Organization. The Chief Scientist is also the Chairman of the Board of Management for Research and Development, which is responsible for the efficient and economical conduct of research and development undertakings. The headquarters of the Branch is situated at 339 Swanston-street, Melbourne, and the following establishments are included in the Branch:—Weapons Research Establishment, Salisbury, South Australia; Defence Standards Laboratories at Maribyrnong, Victoria. Finsbury, South Australia, and Alexandria, New South Wales; Aeronautical Research Laboratories, Fishermen's Bend, Victoria.

(ii) *Weapons Research Establishment, Salisbury, South Australia.* This Establishment has three main sections, namely, the Trials and Instrumentation Wing, the Weapons Research and Development Wing and the Engineering Wing.

The Trials and Instrumentation Wing is concerned with the Joint United Kingdom—Australia Long Range Weapons Project and is responsible for the testing of guided missiles developed in the United Kingdom. The Weapons Research and Development Wing is engaged chiefly on Australian-initiated research but also provides a supporting research service for the Joint Project. The Engineering Wing designs the technical features of new installations on the range and operates the engineering facilities of the Establishment.

The headquarters of Weapons Research Establishment, consisting of the main laboratory, workshop, and administrative services, is located at Salisbury.

Accommodation has been provided in the area for a number of United Kingdom firms which are developing guided weapons under contract to the British Ministry of Supply.

A modern airfield (Edinburgh Field) has been established adjacent to the Headquarters at Salisbury to meet the flying requirements of the establishment, the flying effort being provided by the R.A.A.F.

Testing ranges have been established in South Australia at Woomera, which is approximately 280 miles north-west of Adelaide and 9 miles north of Pimba, a settlement on the Trans-continental railway line. Agreements have been signed by the Australian and United States Governments for a co-operative programme for the establishment and operation in Australia, for scientific purposes, of facilities for space vehicle tracking and communications.

A Space Research Station has been established at Island Lagoon, south of Woomera, for optical and telemetry tracking and recording of information from satellite and deep space probe vehicles. The station carries out this work with a Baker Nunn camera, Mini-track radio tracking equipment and an 85 ft. diameter dish radio telescope.

Tracking stations have been set up at Red Lake, north of Woomera, and at Muchea in Western Australia, in connexion with "Project Mercury", the "Man in Space" project of the United States National Aeronautics and Space Administration.

A modern township of 660 family houses and flats and 1,100 single quarters, together with modern amenities such as hospital, school, kindergartens, community store, swimming pool, and all sporting facilities, has been built at Woomera to accommodate the range and allied services personnel and their families.

(iii) *Defence Standards Laboratories.* The Defence Standards Laboratories at Maribyrnong, Victoria, Finsbury, South Australia, and Alexandria, New South Wales, continue to give comprehensive service to industry, the armed services and to other Commonwealth and State Departments.

The broad function of these laboratories is the application of scientific knowledge and research to the problems arising in design, development, manufacture, inspection, storage, and use of war *matériel*. Research is also carried out in connexion with the development of new and improved materials, methods and equipment of known or potential interest.

(iv) *Aeronautical Research Laboratories.* The broad function of the Aeronautical Research Laboratories is the application of scientific knowledge in the field of aeronautics to the operational and technical problems of the armed Services and industry, and to the development of new weapons and military equipment. More specifically, the Laboratories conduct investigations in aerodynamics, structures, materials, and power plants, with particular attention to aeronautical defence problems, especially those of missile design and operational effectiveness. These Laboratories also collaborate with the United Kingdom on aeronautical research matters of mutual interest.

4. *Production.*—(i) *Munitions.* The Department is responsible for the production in Australia of munitions (other than specialized Navy requirements) for the Australian Services. Production is carried out substantially in government factories but large orders are also placed with private industry.

The following government factories are currently in operation:—Ammunition—Footscray, Victoria; Explosives and Filling—Albion and Maribyrnong, Victoria; Mulwala and St. Mary's, New South Wales; Ordnance—Maribyrnong, Bendigo and Port Melbourne, all in Victoria; Small Arms—Lithgow, New South Wales; Clothing—Victoria.

With the exception of the Clothing Factory, these factories are largely complementary to each other in the manufacture of a range of basic munitions. The Ammunition Factory makes the brass and non-ferrous components of gun ammunition, including melting and rolling, and these components are then passed to the filling factories for filling and assembly. However, the Factory makes the complete round for small arms ammunition, the propellant being supplied by the Explosives Factories. Electronic fuses are also being developed and produced with this factory as the co-ordinating establishment. The private radio industry is producing the electronic components required for these fuses.

The Ordnance Factories have produced armament and propulsion units for the Naval building programme of Daring class destroyers and frigates. Heavy forgings are produced at Maribyrnong and heavy plate fabrications are produced at both Maribyrnong and Bendigo. At Maribyrnong, production capacity exists for fire control equipment. Steel shell bodies are produced at Maribyrnong and passed to Explosives Filling Factories to be filled with explosives and assembled with other components produced at Ammunition Factories.

At Port Melbourne, production capacity exists for large marine diesel engines up to 20,000 b.h.p. At present, two 5,500 b.h.p. "Doxford" engines are in production for the Australian Shipbuilding Board and two 10,500 b.h.p. Sulzer engines are in production for the Broken Hill Proprietary Company Limited, the major components of which are forged or fabricated at Maribyrnong.

The Lithgow Factory is equipped to make the rifles and other small arms for which the Ammunition Factory produces the ammunition. The Factory is currently producing the F.N. 7.62 mm. automatic rifle for the Australian Army to replace the .303 Lee Enfield rifle. Orders for the new rifle have also been received from the New Zealand, Ghana and Malayan Governments. The stocks required for these rifles are produced from Australian-grown timber and fabricated by private industry.

The Clothing Factory makes uniforms and items involving canvas materials for the three services as well as for the Postmaster-General's Department.

(ii) *Aircraft.* (a) *General.* Production of military types of aircraft and aero engines and of other aircraft components required by the Royal Australian Air Force is also administered by the Department of Supply. Planning of capacity and the negotiation of contractual arrangements in connexion with aircraft modification, repair and overhaul, and for the supply of certain aircraft and engine spare parts and airborne equipment are also functions of the Department.

The following government factories are operated:—Aircraft Factory, Fishermen's Bend, and Test Field, Avalon, Victoria; and Airframe Repair Workshops, Parafield and Northfield, South Australia.

(b) *Aircraft, Engine and Other Production.* The approved production programmes for the major aircraft manufacturing organizations comprise the French Mirage supersonic fighter, the Jindivik radio-controlled jet-propelled target aircraft, and the Malkara guided missile at the Government Aircraft Factory, Melbourne; Avon-Sabre jet-engined fighters and Rolls-Royce Avon turbo-jet engines at Commonwealth Aircraft Corporation Pty. Ltd., Melbourne; and Vampire jet-trainers at De Havilland Aircraft Pty. Ltd., Sydney.

The Mirage project is being undertaken on the basis of the Government Aircraft Factory acting as the prime contractor, with the Commonwealth Aircraft Corporation manufacturing the engine, wing and fin.

Jindiviks are being produced for the Weapons Research Establishment at Woomera and for the United Kingdom Government and the Royal Swedish Air Board. The Malkara missile is being developed in accordance with British Army needs.

Production activities included the manufacture of engine parts at the De Havilland Aircraft Engine Factory, Sydney, of aircraft pressed metal parts at Chrysler Australia Ltd., Adelaide, and of turbine and compressor blades for jet engines at National Forge Pty. Ltd., Melbourne.

(c) *Repair and Overhaul.* During the year, the R.A.A.F. continued the broad policy of returning to the factories in which they were produced all Australian-made aircraft and aero engines requiring major overhaul or the incorporation of modifications. Repair and overhaul of R.A.A.F. aircraft of certain other types and of carrier-based aircraft operated by the R.A.N. were undertaken by civilian personnel in the aircraft factories or in the works of contractors specially equipped for the purpose.

Canberra bomber and Jindivik target aircraft were repaired and modified at the Government Aircraft Factories.

Dakota transport and other miscellaneous aircraft were reconditioned and serviced at the Government workshops at Parafield, South Australia.

Vampire fighters and trainers and carrier-based Sea Venom aircraft were modified, repaired and overhauled at De Havilland Aircraft Pty. Ltd., Bankstown, New South Wales. Engines from Sea Venom, Vampire and Gannet aircraft, as well as from Centurion tanks were modified, repaired, and overhauled at the Engine Factory, Lidcombe. Propellers from the R.A.A.F. and the R.A.N. were also overhauled there.

Wright turbo-compound engines from Neptune aircraft and Allison T.56 engines from Hercules transports were overhauled at Qantas Empire Airways Ltd., Sydney, for the R.A.A.F.

The repair and overhaul of carrier-based Fairey "Gannet" aircraft for the R.A.N. and the erection of "Meteor" target aircraft for the Woomera Rocket Range were handled by the Fairey Aviation Company of Australasia Ltd., Sydney.

Sycamore helicopter aircraft, Bristol freighter aircraft, Alvis Leonides and Bristol Hercules engines were repaired and overhauled by Bristol Aviation Services, also in Sydney.

The reconditioning and servicing of aircraft instruments, electrical, electronic and other ancillary equipment and airframe components were carried out by various contractors.

(d) *Telecommunications.* Developmental and production orders were placed with industry for new and improved types of Service telecommunications equipment.

5. *Contract Board.*—(i) *General.* Under the Supply and Development Act 1939–1948, the Contract Board is the authority responsible for purchasing supplies and arranging services for the Naval, Military and Air Forces of the Commonwealth, as well as for the Department of Supply. It is also responsible for the sale or disposal of all surplus or unserviceable war matériel and other goods approved for disposal. In addition, the Board arranges purchases and disposals on behalf of other Commonwealth departments and authorities which have no public contract organization of their own, e.g., Immigration, National Development and External Affairs (Colombo Plan supplies).

(ii) *The Board and its Administrative Organization.* The Contract Board meets in Melbourne, and comprises representatives of the Departments of Supply, Navy, Army and Air. The Board's administrative organization is the Directorate of Contracts. In each

State other than Victoria, there is a District Contract Board with an administrative organization similar to the Directorate of Contracts. The table following shows, in respect of the Contract Board organization, the purchases and realizations from disposals for the years 1958-59 and 1959-60.

CONTRACT BOARD ORGANIZATION : PURCHASES AND REALIZATIONS FROM DISPOSALS.

(£.)

State.	Purchases.		Realizations from Disposals.	
	1958-59.	1959-60.	1958-59.	1959-60.
Contract Board, Victoria	31,756,415	20,870,475	1,343,623	2,566,171
District Contract Board—				
New South Wales	4,906,385	4,632,332	1,432,395	1,518,981
Queensland	868,149	1,095,748	458,951	564,946
South Australia	1,242,548	2,301,840	382,450	644,545
Western Australia	363,775	417,070	224,761	243,696
Tasmania	91,339	89,025	35,673	64,399
Total	39,228,611	29,406,490	3,877,853	5,602,738

6. **Defence Supply Planning.**—The central planning authority of the Department is the Planning Branch, the principal functions of which are:—

- (i) to plan for and to assist in the development of additional production capacity to meet the Services' munitions requirements for mobilization and war;
- (ii) to provide and administer stockpiles of relevant materials and reserve pools of plant and equipment considered essential for expansion of production in the event of war;
- (iii) to prepare and advance co-ordinated production programmes against Service orders and to analyse and interpret achievement against these programmes for the information of the Department and the Services;
- (iv) to provide advisory service in the field of instrumentation and inspection to Government factories and contractors engaged in the production of munitions requirements; and
- (v) to carry out surveys of production capacity and to indicate steps necessary to augment capacity in the event of war.

A series of Industry Advisory Committees has been established to advise the Minister and the Department in the development of industrial mobilization plans to meet the Services *matériel* requirements for mobilization and war. The Committees are: Ammunition; Electrical; Explosives and Chemicals; Machine Tools and Gauges and Munitions Factory Equipment; Materials; Military Vehicles; Radar and Telecommunications; Weapons and their Equipment; Hard Fibres; Raw Cotton; and Rubber and Allied Materials.

Members of the Committees include industrialists of wide experience and the highest ability in their chosen fields.

7. **Stores and Transport Branch.**—This Branch, administered by a Board of Management and working under the direction of a General Manager, functions as the Central Storage Authority and the Central Transport Authority for all Commonwealth Departments. It is the authority for the arrangement of furniture removals at departmental expense in all States, but not in the Australian Capital Territory or the Northern Territory. It has agents in Canberra and Darwin. It also operates a Shipping and Customs Section and the England-Australia Bulk Air Freight Scheme for Commonwealth Departments.

On 30th June, 1960, the Branch had under its control land, buildings and works, vehicles, plant and equipment valued at £9,469,026 and 3,462,861 sq. ft. of storage space as well as storage facilities for large quantities of chemicals, bulk liquids and explosives.

8. Finance Branch.—The expenditure on Department of Supply activities during the year 1959-60 is shown in the following table:—

SUPPLY: TOTAL EXPENDITURE, 1959-60.
(£'000.)

Particulars.	Expenditure.
Parliamentary Appropriations	20,800
<i>Trust Fund Accounts—</i>	
Stores and Transport	5,462
Government Factories and Establishments	15,828
Munitions Production	8,153
Defence Production Materials	171
<i>Total Trust Fund Accounts</i>	<i>29,614</i>
Total Expenditure	50,414

CHAPTER XXIX.

REPATRIATION.

§ 1. General.

The Repatriation Commission, established under the Repatriation Act 1920-1960, is a body corporate consisting of three full-time members. The head office is in Melbourne, but there is a branch office in each State under the control of a Deputy Commissioner.

Its principal functions are—

- (i) the payment of war and service pensions to ex-service men and women and their dependants;
- (ii) the provision of medical treatment to ex-service men and women for injuries and illnesses caused or aggravated by their war service;
- (iii) the provision of medical treatment in certain circumstances to ex-service men and women, who are suffering from injuries and illnesses not caused or aggravated by war service;
- (iv) the provision of medical treatment to widows and dependants of deceased ex-servicemen whose deaths are due to war service.

Other functions of the Repatriation Commission are outlined in a later section of this chapter (*see* § 5, General Benefits and Miscellaneous, page 1115).

The Repatriation (Far East Strategic Reserve) Act 1956, which provided benefits for members of the defence forces who served with the British Commonwealth Far East Strategic Reserve in Malaya, came into force on 1st September, 1957. Particulars of pensions under this Act are excluded from the following tables, such information as is available being shown in footnotes.

§ 2. War Pensions.

1. **General.**—The first provision for the payment of war pensions to ex-servicemen and their dependants was made by the Commonwealth Parliament in the War Pensions Act 1914, which came into operation on 21st December, 1914. This Act was repealed in 1920 by the Australian Soldiers' Repatriation Act (amended from 31st December, 1950, to the Repatriation Act). Owing to limitations of space, only some of the main features relating to war pensions under the Repatriation Act 1920-1960 are set out in the following paragraphs.

(i) *Eligibility for Pension.* The 1943 amendments to the Repatriation Act considerably widened the provisions in this respect, to the benefit, mainly, of members of the Citizen Military Forces who had not served outside Australia. These provisions are summarized as follows:—

- (a) A member of the forces who served (1) outside Australia, (2) in the Territories of Australia, such as Papua and New Guinea, or (3) within Australia in

circumstances which can be regarded as combat against the enemy, is covered for war pension purposes in respect of incapacity or death which may result from any occurrence that happened during the period from the date of his enlistment to the date of the termination of his service in respect of that enlistment.

(b) In other cases where a member served only in Australia, incapacity or death to be pensionable must have been attributable to service.

(c) There is a third ground applicable to all in (a) and those in (b) who had at least six months' camp service. This provides that, where a condition existed at enlistment, a pension may accrue if it is considered that the condition was aggravated by service.

(ii) *Pensions for Incapacity.* From 1st October, 1959, the 100 per cent. pension rate for an ex-serviceman's incapacity was increased from £5 2s. 6d. to £5 10s. 0d. a week (higher rates were payable in respect of certain commissioned ranks). The rates for wives and children of incapacitated ex-servicemen are £1 15s. 6d. and 13s. 9d. a week, respectively.

(iii) *Supplementation of Pensions.* Where an ex-serviceman is, because of his war disability, temporarily (for at least three months) precluded from earning other than a negligible percentage of a living wage, an additional pension may be granted to bring the total pension to the ex-serviceman up to £12 15s. a week, an increase of 10s. from 29th September, 1960.

(iv) *Women's Nursing and Auxiliary Services.* Members of Women's Services are eligible for pensions and other benefits as prescribed in the Act on the same basis as male members of the Forces.

(v) *Pulmonary Tuberculosis.* If at any time after discharge, an ex-serviceman who served in a theatre of war became or becomes incapacitated, or died or dies, from pulmonary tuberculosis, war pension is payable as if the incapacity or death resulted from an occurrence on service. (See also § 3. Service Pensions.) Medical treatment may also be provided on application.

(vi) *Special Rates.* Those who have been totally blinded as a result of war service and those who are permanently and totally incapacitated receive a special pension which was increased from £12 5s. to £12 15s. a week from 29th September, 1960. The rate for tuberculous patients, Class "B" (fit for light employment), was similarly increased from £8 12s. 6d. to £8 17s. 6d. a week. In addition to the special pension, an attendant's allowance of £2 15s. a week is granted to the war-blinded and to certain others who are deemed to be in need of an attendant. A war-blinded ex-serviceman who is also affected with total loss of speech or total deafness is entitled to an attendant's allowance of £4 10s. a week in lieu of that referred to above. The wife and any children under 16 years of age receive the same rates as shown in sub-para. (ii).

(vii) *Clothing Allowance.* As from 1st October, 1959, provision was made for ex-servicemen to receive a clothing allowance ranging from 3s. 9d. to 7s. 6d. weekly for damage to clothing caused by the use of an artificial limb or other appliance, where the incapacity is due to war service, or by the use of oils, ointments, or other substances used in the necessary treatment of accepted disabilities, e.g. skin diseases, suppurating wounds, etc.

(viii) *Specified Disabilities.* Where the disability is amputation of a limb or limbs or total loss of vision in one eye, amounts ranging from 13s. 6d. to £7 5s. a week in addition to the statutory rate of pension are payable as from 29th September, 1960. In addition, attendants' allowances of either £2 15s. or £4 10s. a week are payable in certain double amputation cases.

(ix) *Time Limit Removed for Wives and Children.* Prior to the 1950 amending Act, wives who were married and children who were born after specified dates, were ineligible to receive a war pension. This time limit was removed as from 2nd November, 1950.

(x) *Rates of Pension for Death.* (a) *Widows.* From 1st October, 1960, the rates of pension were increased by 5s. a week, the minimum rate being increased from £5 5s. to £5 10s. a week (higher rates are payable in respect of certain commissioned ranks).

In addition to pension, a widow receives an allowance if she has a dependent child or children under the age of 16 years, or if she is over 50 years of age, or is permanently unemployable, or has a child over 16 years who is undertaking education or training and who is, in the opinion of the Commission, not receiving an adequate living wage.

(b) *Children.* From 2nd October, 1958, the rate of pension for the eldest child (under 16 years of age) was increased from £1 6s. 6d. a week to £1 11s. 6d. a week, and that for each younger child from 18s. 6d. a week to £1 2s. 6d. a week. Additional pension of 6s. a week may be paid in certain circumstances. Where both parents are dead, pension payable to each child was increased from £2 8s. a week to £3 3s. a week.

(xi) *Widowed Mother on Death of Member.* A pension ranging from £2 5s. to £4 3s. a week, according to the rank of the ex-serviceman, may be granted to the widowed mother of a deceased unmarried son, provided widowhood occurred either prior to or within three years after the death of the member. The pension may be supplemented by payment of an additional amount (not exceeding £5 a week as from 29th September, 1960) according to the extent of other income of the pensioner. The value of property owned does not affect the pension.

2. *Appeals Tribunals.*—The principal Act was amended, as from 1st June, 1929, to create tribunals to hear appeals in respect of war pensions. The War Pensions Entitlement Appeal Tribunal is empowered to hear and decide any appeal by or on behalf of ex-servicemen or their dependants against a decision of a Repatriation Board or the Repatriation Commission that the incapacity or death of an ex-serviceman did not arise out of war service. Assessment Appeal Tribunals were created to hear and decide any appeal against a current assessment or a "Nil" assessment of war pension made by the Repatriation Commission in respect of the incapacity of an ex-serviceman which had been accepted as arising out of war service. Provision was made by subsequent legislation to enable the Tribunals to hear appeals by certain members whose application for a service pension had been refused on the grounds that they were not suffering from pulmonary tuberculosis or were permanently unemployable.

3. *Summary of War Pensions, 1959-60.*—The following table provides a summary of war pensions for the 1914-18 War, the 1939-45 War, and the Korea and Malaya operations:—

WAR PENSIONS: SUMMARY, AUSTRALIA, 1959-60.

Particulars.	1914-18 War.	1939-45 War.	Korea and Malaya Operations.	Total. (a)
New claims granted	2,343	28,397	908	31,648
Restorations	421	1,159	4	1,584
Claims rejected (gross)	2,638	17,852	1,174	21,664
Pensions cancelled or discontinued	1,017	12,605	80	13,702
Deaths of pensioners	4,465	2,681	18	7,164
Number of pensions in force at 30th June, 1960	124,713	523,846	5,712	654,271
Annual pension liability at 30th June, 1960	22,428,690	33,056,692	311,195	55,796,577
Amount paid in pensions during the year 1959-60	(b)	(b)	(b)	54,361,865

(a) Excludes 65 Far East Strategic Reserve pensioners with annual liability of £3,733. (b) Not available.

4. *Classes of War Pensions, Australia, 1959-60.*—(a) *New Claims Granted.* The following is an analysis of the total number of new claims granted during 1959-60:—

WAR PENSIONS: NEW CLAIMS GRANTED, AUSTRALIA, 1959-60.

Class.	1914-18 War.	1939-45 War.	Korea and Malaya Operations.	Total. (a)
Ex-servicemen	916	5,922	202	7,040
Wives of ex-servicemen	1,101	6,010	192	7,303
Children	199	15,871	508	16,578
Other dependants	127	594	6	727
Total(a)	2,343	28,397	908	31,648

(a) Excludes 55 Far East Strategic Reserve pensioners.

(b) *Pensions in Force.* The following table shows the number of pensions in force at 30th June, 1960, for each war and for each class of pensioner:—

WAR PENSIONS IN FORCE: AUSTRALIA, 30th JUNE, 1960.

Class.	Number of Pensioners at 30th June, 1960.			
	1914-18 War.	1939-45 War.	Korea and Malaya Operations.	Total. (a)
Ex-servicemen	52,324	155,534	1,864	209,722
Wives	47,221	130,350	1,279	178,850
Children	2,251	211,039	2,311	215,601
War widows	21,319	12,899	66	34,284
Children of deceased ex-servicemen	290	6,673	106	7,069
Orphans	26	114	..	140
Parents	1,004	6,991	83	8,078
Brothers and sisters	60	100	3	163
Others	218	146	..	364
Total(a)	124,713	523,846	5,712	654,271

(a) Excludes 65 Far East Strategic Reserve pensioners.

(c) *Special Rate Pensions.* At 30th June, 1960, special rate pensions were being paid to the following classes of ex-servicemen:—

WAR PENSIONS: MEMBERS ON SPECIAL RATES, AUSTRALIA, 30th JUNE, 1960.

Class.	1914-18 War.	1939-45 War.	Korea and Malaya Operations.	Total.
Blinded ex-servicemen	254	219	3	476
Tuberculous ex-servicemen	521	459	6	986
Totally and permanently incapacitated ex-servicemen	12,048	5,892	19	17,959
Tuberculous, Class " B "	129	247	1	377

5. *Number of War Pensioners and Annual Liability, States, etc., 30th June, 1960.*—The following table shows the number of pensions in force and annual liability for each war at 30th June, 1960, according to place of payment. (The amount paid is shown on p. 1112.)

WAR PENSIONS: NUMBER OF PENSIONERS AND ANNUAL LIABILITY, 30th JUNE, 1960.

Where Paid.	Number of War Pensions in Force at 30th June, 1960.				Annual Pension Liability (£.) (a)	
	Incapacitated Ex-service-men.	Dependants of Incapacitated Ex-service-men.	Dependants of Deceased Ex-service-men.	Total. (a)		
1914-18 WAR.						
New South Wales(b)	..	16,713	15,860	7,611	40,184	7,287,835
Victoria	17,530	16,278	7,618	41,426	7,468,450
Queensland	6,535	6,118	2,127	14,780	2,889,782
South Australia(c)	..	4,046	3,984	1,806	9,836	1,804,326
Western Australia	4,173	4,249	1,586	10,008	1,498,680
Tasmania	2,250	2,191	930	5,371	1,038,373
Australia	51,247	48,680	21,678	121,605	21,987,446
Overseas	1,077	1,181	850	3,108	441,244
Total	52,324	49,861	22,528	124,713	22,428,690

1939-45 WAR.

New South Wales(b)	54,075	111,394	10,020	175,489	11,303,224
Victoria ..	43,088	95,681	7,003	145,772	9,021,281
Queensland ..	21,442	50,076	3,281	74,799	5,043,602
South Australia(c)	16,233	38,489	2,710	57,432	3,371,860
Western Australia ..	14,031	29,916	2,211	46,158	2,811,951
Tasmania ..	6,108	15,536	777	22,421	1,338,060
<i>Australia</i> ..	<i>154,977</i>	<i>341,092</i>	<i>26,002</i>	<i>522,071</i>	<i>32,889,978</i>
Overseas ..	557	893	325	1,775	166,714
Total ..	155,534	341,985	26,327	523,846	33,056,692

KOREA AND MALAYA OPERATIONS.

New South Wales(b)	730	1,343	95	2,168	113,647
Victoria ..	434	801	67	1,302	71,282
Queensland ..	318	641	38	997	58,478
South Australia(c)	134	286	9	429	23,025
Western Australia ..	145	311	18	474	25,642
Tasmania ..	72	174	9	255	11,480
<i>Australia</i> ..	<i>1,833</i>	<i>3,556</i>	<i>236</i>	<i>5,625</i>	<i>303,554</i>
Overseas ..	31	37	19	87	7,641
Total ..	1,864	3,593	255	5,712	311,195

(a) Excludes 65 Far East Strategic Reserve pensioners with annual liability of £3,733.
the Australian Capital Territory.

(c) Includes the Northern Territory.

(b) Includes

6. **Summary of War Pensions.**—(i) *Number.* The following table shows, for each war and in total, the number of pensions granted, claims rejected, pensions in force, and the annual liability for pensions in each of the years ended 30th June, 1956 to 1960.

WAR PENSIONS: SUMMARY, AUSTRALIA.

Year ended 30th June—	Pensions Granted.	Claims Rejected.	Number of War Pensions in Force at 30th June.				Annual Pension Liability at 30th June. (£.)
			Incapaci- tated Ex-service- men.	Depend- ants of Incapaci- tated Ex-service- men.	Depend- ants of Deceased Ex-service- men.	Total.	

1914-18 WAR.

1956	2,337	1,488	58,984	55,720	21,409	136,113	18,939,411
1957	2,276	2,442	57,380	54,183	21,677	133,240	19,074,146
1958	2,353	2,368	55,814	52,806	21,985	130,605	20,739,134
1959	2,098	2,767	54,005	51,215	22,240	127,460	21,032,135
1960	2,343	2,638	52,324	49,861	22,528	124,713	22,428,690

1939-45 WAR.

1956	30,098	13,756	139,249	296,214	25,391	460,854	24,548,421
1957	28,634	19,682	143,055	308,333	25,287	476,675	25,609,726
1958	29,007	18,165	147,147	321,215	25,269	493,631	28,339,013
1959	27,829	18,954	151,249	332,691	25,758	509,698	29,904,732
1960	28,397	17,852	155,534	341,985	26,327	523,846	33,056,692

KOREA AND MALAYA OPERATIONS.

1956	676	305	1,057	1,382	208	2,647	157,155
1957	782	616	1,279	1,881	215	3,375	188,864
1958	820	989	1,478	2,408	240	4,126	235,300
1959	834	1,193	1,670	2,970	249	4,889	269,208
1960	908	1,174	1,864	3,593	255	5,712	311,195

TOTAL.

1956	33,111	15,549	199,290	353,316	47,008	599,614	43,644,987
1957	31,692	22,740	201,714	364,397	47,179	613,290	44,872,736
1958	32,180	21,522	204,439	376,429	47,494	628,362	49,313,447
1959(a)	30,761	22,914	206,924	386,876	48,247	642,047	51,206,075
1960(a)	31,648	21,664	209,722	395,439	49,110	654,271	55,796,577

(a) Excludes Far Eastern Strategic Reserve pensioners:—1959—16, 1960—65, with annual liability 1959—£1,410, 1960—£3,733.

(ii) *Amount Paid and Place of Payment.* The following table shows for the years 1955-56 to 1959-60 the amounts paid in pensions and the place where they were paid:—

WAR PENSIONS: AMOUNT PAID. (£.)

Place of Payment.	1955-56.	1956-57.	1957-58.	1958-59. (a)	1959-60. (a)
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New South Wales(b)	14,501,426	15,297,734	16,824,229	16,813,419	18,167,146
Victoria	12,718,047	13,372,248	14,871,179	15,201,405	16,100,551
Queensland	5,763,319	6,106,669	6,919,363	7,215,834	7,741,918
South Australia(c)	4,135,874	4,309,036	4,812,417	4,846,030	5,052,143
Western Australia	3,450,830	3,584,495	4,008,412	3,946,502	4,235,747
Tasmania	2,017,289	2,026,868	2,211,862	2,229,229	2,416,016
Overseas	578,892	506,737	630,735	605,004	648,344

Total 43,165,677 43,203,787 50,278,197 50,857,423 54,361,865

(a) Excludes payments to Far Eastern Strategic Reserve pensioners.
Capital Territory.

(c) Includes the Northern Territory.

(b) Includes the Australian

§ 3. Service Pensions.

1. **General.**—The Repatriation Act 1920–1960, administered by the Repatriation Department, provides for a service pension to be paid, subject to a means test of income and property, to the following persons:—

- (i) A male ex-serviceman who is sixty years of age and who served in a theatre of war, or to an ex-servicewoman who is 55 years of age and who served abroad. No pension is payable to the wife or children under 16 years of age of an ex-serviceman granted a service pension on account of age.
- (ii) An ex-serviceman who is permanently unemployable and who served in a theatre of war (or in the case of an ex-servicewoman, who served abroad). Service pensions are also payable to a pensioner's wife and up to four children under 16 years of age.
- (iii) An ex-serviceman suffering incapacity from pulmonary tuberculosis whether or not the person served in a theatre of war. Service pensions are also payable to a pensioner's wife and up to four children under 16 years of age.

Only those persons who qualify under (iii) are entitled to receive both service and invalid pensions at the same time.

2. **Rate of Pension.**—The maximum rate of service pension is the same as that for age and invalid pensions paid by the Department of Social Services, namely, £5 a week. A member service pensioner with two or more children under 16 years of age in his care, custody and control, is eligible for a further 10s. a week for each child except the first, if he receives a service pension on the ground of being permanently unemployable, or suffering from pulmonary tuberculosis. In addition, a service pensioner in receipt of service pension at the maximum rate may also receive supplementary assistance of 10s. a week if he pays rent and is entirely dependent upon his service pension.

The maximum rate for a member's wife is £1 15s. a week; the rate for the first child under sixteen years of age is 11s. 6d. a week and for each other child (not exceeding three) 2s. 6d. a week.

The means test sets limits to the amount of income or property which a pensioner may have for the purpose of service pension. The amount of service pension payable will depend upon the claimant's "means as assessed", which consists of his annual rate of income plus a property component equal to 9d. per fortnight for each complete unit of £10 of net value of property above £200. For married couples, except where they are separated or in other special circumstances, the income and property of each for purposes of applying the means test is taken to be half the total income and property of both, even if only one is a pensioner or claimant. A person's "means as assessed" may consist entirely of income, entirely of property component, or of both income and property components. If his "means as assessed" do not exceed £182 a year (£3 10s. a week), the claimant will receive the full pension of £5 a week. If his "means as assessed" exceed £182 (£3 10s. a week) and are less than £442 a year (£8 10s. a week), a reduced pension will be payable. The rate payable will be the maximum rate of £5 a week less the amount by which "means as assessed" exceed £182 a year (£3 10s. a week). If his "means as assessed" are £442 a year (£8 10s. a week), or in the case of a married couple £884 a year (£17 a week), no service pension is payable.

A pensioner with no income may receive a full pension if the value of his property (apart from his home and personal effects) does not exceed £2,060. His pension will be reduced by 9d. per fortnight for each complete £10 of property over £2,060, but he will be eligible for some pension unless he has property (apart from his home and personal effects) worth more than £4,709, or in the case of a married couple £9,419.

Income means earnings and other forms of income derived from any source, with certain exceptions, of which the principal are—certain income derived from property, gifts or allowances from children, parents, brothers or sisters, benefits from friendly societies, child endowment, Commonwealth Health Benefits. The value of board and lodgings received by a pensioner is assessed as income at 12s. 6d. a week. Property includes all real and personal property, such as houses, land, money in hand, in a bank or on loan, shares, investments or legacies, vehicles used for business purposes, livestock. Property does not include an applicant's home, furniture or personal effects, the surrender value of life assurance policies (up to £750), value of any reversionary interest, the capital value of any life interest, annuity or contingent interest, vehicles maintained only for personal use.

Eligibility for service pensions was extended on 1st November, 1941, to veterans of the South African War 1899–1902, and in 1943 to members of the Forces of the 1939–45 War. Members who served in Korea, and those who served in Malaya prior to the commencement of the Repatriation (Far East Strategic Reserve) Act 1956, are also eligible.

An ex-serviceman or ex-servicewoman in receipt of a service pension is entitled, with certain exceptions, to free medical benefits for disabilities not caused by war. These benefits include general practitioner service, specialist service where necessary, full pharmaceutical benefits, surgical aids and appliances (including spectacles), dental treatment and treatment in Repatriation General Hospitals.

3. Operations, 1959–60.—The following table gives a summary of service pensions during 1959–60:—

Claims granted during year—

Ex-servicemen	4,395
Wives	1,531
Children	872
<i>Total</i>	<u>6,798</u>

Claims rejected during year—

Ex-servicemen	1,040
Wives	552
Children	483
<i>Total</i>	<u>2,075</u>

Service pensions cancelled or discontinued during year ..	3,890
Deaths of pensioners during year	2,161
Pensions in force at 30th June, 1960	45,818
Annual pension liability at 30th June, 1960	£6,924,312

4. Number of Service Pensioners and Amount Paid.—(i) *Summary, Australia.* The following table shows the number of service pensions in force and the amount paid in pensions for the five years 1955–56 to 1959–60.

SERVICE PENSIONS : SUMMARY, AUSTRALIA.

Year.	Number of Service Pensions at 30th June payable to—						Amount Paid in Pensions during year ended 30th June.
	Aged Ex-servicemen.	Ex-servicemen who are—		Dependants of Ex-servicemen where the Ex-serviceman is—		Total.	
		Permanently Unemployable.	Suffering from Pulmonary Tuberculosis.	Permanently Unemployable.	Suffering from Pulmonary Tuberculosis.		
1955-56	11,881	9,733	1,266	10,001	1,894	34,775	£ 4,140,488
1956-57	13,547	10,794	1,449	11,074	2,213	39,077	4,907,362
1957-58	15,365	11,472	1,477	11,667	2,222	42,203	5,629,748
1958-59	16,973	11,898	1,433	11,956	2,112	44,372	6,220,300
1959-60	18,193	12,140	1,379	12,080	2,026	45,818	6,748,223

(ii) *Amount Paid and State where Paid.* The following table shows for the years 1955–56 to 1959–60 the amount paid in pensions and the State where paid :—

SERVICE PENSIONS: AMOUNT PAID.

(£.)

State where Paid.	1955–56.	1956–57.	1957–58.	1958–59.	1959–60.
New South Wales(a) ..	1,472,949	1,727,099	1,899,624	2,233,721	2,359,860
Victoria	958,825	1,089,529	1,319,599	1,387,328	1,518,196
Queensland	679,181	845,828	945,654	995,258	1,079,810
South Australia(b) ..	401,159	477,229	520,481	583,826	643,906
Western Australia ..	482,021	547,473	697,531	775,769	875,706
Tasmania	146,353	220,204	246,859	244,398	270,745
Australia	4,140,488	4,907,362	5,629,748	6,220,300	6,748,223

(a) Includes the Australian Capital Territory.

(b) Includes the Northern Territory.

§ 4. Medical Treatment of Ex-Servicemen Suffering from War Service Disabilities.

At 30th June, 1960, there were 4,437 in-patients in Repatriation medical institutions and State mental hospitals, including a number whose care was undertaken by the Repatriation Commission on behalf of other countries or Commonwealth departments. There were 419,618 out-patient attendances for treatment during the year, excluding approximately 1,580,140 treatments by local medical officers resident in metropolitan and country areas and in New Guinea. The expenditure for the year ended 30th June, 1960, was £13,609,746.

§ 5. General Benefits and Miscellaneous.

1. *Other Departmental Activities.*—(i) *General.* During the 1939–45 War, the ordinary activities of the Department in the way of general benefits for the welfare of ex-servicemen and dependants were carried on without interruption. They were mainly education and training of children under the Soldiers' Children Education Scheme, medical benefits for widows and children of deceased ex-servicemen and for widowed mothers of deceased unmarried ex-servicemen, funeral expenses for certain classes of ex-servicemen and dependants, and allowances to certain classes of dependants.

By legislation passed in June, 1940, these benefits were extended to servicemen engaged in the 1939–45 War, and in November, 1950, to those engaged in the Korea and Malaya Operations, and new benefits designed for the re-establishment of servicemen after discharge from the Forces were made available. The re-establishment benefits administered by the Repatriation Commission are:—payment of re-employment allowance while awaiting employment; provision of tools of trade and equipment where such are necessary to employment; transportation expenses to meet the cost of fares and removal of household belongings, where an ex-serviceman takes up training, employment, or a business, or settles on the land; supplementing of wages of apprentices whose apprenticeships were interrupted by war service; re-establishment loans to enable ex-servicemen and widows to establish themselves in business, practices or other occupations, including (until the Division of War Service Land Settlement began operations early in 1946) agricultural occupations; payment of re-establishment allowance during the early stages of establishment in business; gifts up to £75 for furniture to ex-servicemen who are blind or totally and permanently incapacitated, also to widows with children under 16 years of age; and free passages to Australia for wives, widows and children of ex-servicemen who married abroad (and passages outward from Australia in certain cases of ex-servicemen and dependants).

In 1949, the Commission took over the functions of the Re-establishment Division of the former Department of Post-War Reconstruction, and was responsible for the co-ordination of all matters relating to training under the Commonwealth Reconstruction Training Scheme. This scheme is now virtually concluded, because the prescribed time limits for eligibility have expired. Re-establishment of the more seriously disabled, where ordinary training is not sufficient, continues to be a function of the Commission, and special means have to be found to overcome each problem.

(ii) *General Repatriation Benefits.* The following table gives a summary of expenditure during the five years 1955–56 to 1959–60 on the more important general repatriation benefits for all wars.

EXPENDITURE ON GENERAL REPATRIATION BENEFITS: SUMMARY.

(£.)

Year ended 30th June.	Medical Treatment.	Employment and Vocational Training.	Business Loans and Furniture.	Soldiers' Children Education Scheme.	Living Allowances.	Other Benefits.	Total.
1956..	9,559,880	221,711	145,453	348,282	2,357,660	206,615	12,839,601
1957..	10,288,344	253,665	91,380	427,546	2,447,443	234,797	13,743,175
1958..	10,979,925	340,004	56,492	593,097	2,906,870	228,136	15,104,524
1959..	12,173,009	368,441	36,799	608,442	3,531,840	239,167	16,957,698
1960..	13,609,746	294,967	23,516	646,224	4,210,731	268,129	19,053,313

Included in the expenditure on medical treatment for the year 1959–60 were the following items:—*Ex-servicemen*—Operation of Institutions, £7,182,318; dispensing prescriptions, £2,119,351; fees to consultants, etc., £1,283,549; maintenance of patients in other than Repatriation Institutions, £936,001; sustenance allowance, £737,501; other, £547,193. *Dependants*—£803,833.

2. *Expenditure by the Repatriation Commission, 1959–60.*—The gross expenditure by the Repatriation Commission for the year ended 30th June, 1960, was £85,078,813, distributed as follows:—

<i>Repatriation Benefits—</i>	£	£
War and Service Pensions and Widows' Allowances ..	65,680,359	
Operation of Medical Institutions, Medical Treatment, etc.	13,906,708	
Soldiers' Children Education Scheme	646,224	
		80,233,291
<i>Other Benefits—Seamen's War Pensions, etc.</i>		141,303
<i>Administration</i>		3,659,075
<i>Capital Works and Services</i>		1,045,144
Total..		85,078,813

3. *Settlement of Returned Service Personnel on the Land.*—Reference to the settlement of returned service personnel on the land will be found in Chapter IV.—Land Tenure and Settlement, pages 102–8, of this Year Book.

4. *The Services Canteens Trust Fund.*—(i) *Introduction.* The Services Canteens Trust Fund was established under the Services Trust Funds Act 1947. This Act transferred to the Fund the profits and assets of the Army, Navy and Air Force canteens, the mess and regimental funds of disbanded wartime units, money derived from the sale of amenities supplied to the defence forces between 3rd September, 1939, and 30th June, 1947, and funds held by the A.M.F. Special Benefits Committee, the trustees of the R.A.N. Relief Fund and the trustees of the R.A.A.F. Welfare Fund.

(ii) *Establishment and Administration of the Fund.* The total amount transferred to the Fund to 31st December, 1960 was £5,526,750. The Act prescribed that, of this, £2,500,000 and such further amounts as the trustees of the Fund might from time to time decide, should be devoted to the provision of education facilities for the children of eligible ex-servicemen and women, and that the balance of the fund should be used to provide relief for ex-servicemen and women and their dependants in necessitous circumstances.

The Fund is administered by ten honorary trustees, appointed by the Governor-General. The trustees have power to determine the persons or groups of persons to benefit from the Fund and the extent of benefits to be granted within the provisions of the Act, and to appoint regional committees to assist with the administration.

Regional committees have been established in all Australian States, the Australian Capital Territory, the Northern Territory (Darwin and Alice Springs), New Zealand and London. All Australian diplomatic and consular posts also act as local representatives of the trustees. They have delegated to them by the trustees specific powers to deal with applications for assistance from the Fund.

Members of regional committees are all persons who served in the 1939-45 War or are widows of men who served during the war, and, with the exception of regional chairmen and deputy chairmen, have been selected by the trustees from nominees of the major ex-service organizations. They also serve in an honorary capacity.

(iii) *Assistance from the Fund.* (a) *General.* Persons eligible for assistance from the Fund are those who, between 30th September, 1939, and 30th June, 1947, served in the Australian Naval, Military or Air Forces, including members of the Canteens Staff of any ship of the Royal Australian Navy, persons duly accredited to any part of the Defence Force who served in an official capacity on full-time paid duty, and their dependants.

The trustees are charged under the Services Trust Funds Act with providing educational assistance, including professional and trade training, for the children of deceased or incapacitated eligible servicemen or of eligible servicemen who are in needy circumstances, and for the children of other eligible servicemen in exceptional circumstances, and with providing benefits or other relief for eligible servicemen and their dependants in necessitous or deserving circumstances.

The trustees have introduced schemes for providing welfare relief for ex-service men and women who are eligible for benefits, and for their dependants; benefits for children of eligible ex-service men and women who are suffering from serious and incapacitating afflictions; and education benefits for the children of eligible ex-service men and women. From its inauguration in 1947, the Fund is to be available for 40 years for welfare relief and for 30 years for educational benefits.

(b) *Welfare Relief.* More than one million men and women and all their dependants are eligible for benefits, and the trustees have therefore prescribed a policy for welfare relief which makes assistance available only to those who are in genuine distress from which they cannot extricate themselves by their own efforts.

Applications are carefully investigated to determine the bona fides of the applicant and of the case presented, and to help regional committees in deciding the kind of assistance if any, to be given. Where possible, investigations are made by trained social workers on the staff either of the Fund or of recognized agencies.

To 31st December, 1960, £1,146,824 had been granted as welfare relief from the fund, £804,763 to ex-servicemen and their dependants, and £342,061 to widows and orphans. The amount granted during 1960 was £51,882. A total of 26,478 ex-service men and women, and 10,341 widows and orphans were granted welfare assistance from the Fund to 31st December, 1960.

Of all persons eligible for assistance from the Fund, widows and orphans are considered likely to be in greatest need, especially in the period immediately following the death of an ex-serviceman. Consequently, every effort is made to locate these widows and orphans and their degree of need is interpreted more liberally than is that of ex-servicemen.

(c) *Assistance under Afflicted Children's Scheme.* Also considered particularly deserving of assistance are dependent children suffering from afflictions which permanently disable or seriously retard their progress, or prevent the enjoyment of normal health and strength, who face a prospect of complete or partial dependence on others for all or part of their

lives. The trustees introduced a plan to ensure that any eligible child suffering from a serious affliction may be assisted as necessary to have access to whatever treatment or facilities are available to help the child to lead as normal a life as possible, despite his or her handicap. The extent to which assistance will be granted in a particular case depends largely on the nature of the child's affliction, the facilities available, the family circumstances, and the funds that can be made available. Up to 31st December, 1960, 2,136 afflicted children had been assisted under the Afflicted Children's Scheme, involving an expenditure of £102,630.

(d) *Educational Assistance Scheme.* Educational assistance is restricted to children who are 15 years of age and over, except in exceptional circumstances, when it may be granted from the age of 13, and, in the case of orphans, when assistance may commence from the age of 12 years. The object of the trustees is to assist eligible children to obtain the highest education within their capacity. Educational assistance from the Fund is in the form of awards ranging from £5 to £200 a year depending on the cost of the course undertaken and the family circumstances. These awards are granted for practically every type of course of education, whether secondary, tertiary or commercial. They are designed to cover, or contribute towards, the cost of essential books, fees in cases where government school courses are not available, fares between the child's home and school, essential equipment and material, a uniform allowance in certain years, and a maintenance allowance for the child while at school. Provision exists for one post-graduate scholarship each year for study overseas, valued at £1,000 per annum for three years. Higher training education awards are also provided for selected students for post-graduate study in such fields as physiotherapy, speech therapy, occupational therapy, orthoptic therapy, laboratory technique, etc.

The number of children assisted under the educational scheme to 31st December, 1960, was 33,156, and the expenditure on educational awards, post-graduate scholarships and higher training education awards to 31st December, 1960, was £1,587,678.

§ 6. Seamen's War Pensions and Allowances.

The Seamen's War Pensions and Allowances Act 1940 provided for the grant of pensions to Australian mariners (defined in the Act to cover *inter alia* persons employed in sea-going service on ships registered in Australia and engaged in trading, or on certain other ships owned in Australia and operating from Australian ports) who sustained injury through enemy action, and their dependants, and to the dependants of those who were killed by enemy action. Detention allowances were provided for Australian mariners who were captured, and their dependants, during the period of detention. Compensation to Australian mariners was provided for in respect of personal effects lost or damaged through enemy action. Regulations passed in 1942 provided also for the continuance of wages for those captured by the enemy.

Amendments to the original Act and regulations raised pensions to rates corresponding to those payable under the Repatriation Act, and made mariners eligible for general benefits on the same scale as those available under that Act.

Pensions payable at 30th June, 1960, numbered 246, comprising 56 to incapacitated mariners, 100 to their dependants, and 90 to the dependants of deceased mariners, and the total expenditure during the year 1959-60 was £38,677, compared with amounts ranging between £30,000 and £35,000 in the previous four years.

CHAPTER XXX.

MISCELLANEOUS.

This chapter comprises miscellaneous statistics and other descriptive information not directly related to the subjects of the preceding chapters, arranged in sections as follows:—

1. Valuation of Australian Production; 2. Indexes of Production; 3. Consumption of Foodstuffs and Beverages; 4. Patents, Trade Marks and Designs; 5. Copyright; 6. Australian Shipbuilding Board; 7. Commonwealth Scientific and Industrial Research Organization; 8. Mount Stromlo Observatory; 9. Standards Association of Australia; 10. Industrial Design Council of Australia; 11. Film Censorship Board; 12. Australian National Film Board and the Film Division; 13. National Safety Council of Australia; 14. Australian Road Safety Council; 15. Australian Atomic Energy Commission; 16. The United Nations; 17. Australian Representation Abroad: Oversea Representation in Australia; 18. Retail Trade.

§ 1. Valuation of Australian Production.

1. General.—The value of production for Australia is computed in accordance with the decisions reached at the Conferences of Australian Statisticians and principally at the Conference held in 1935. The figures published below have been compiled by the Statisticians in the various States from the latest data available, and relate to 1959–60. The adoption of substantially uniform methods of valuing production and of estimating elements of costs of production and marketing renders the results comparable as between States.

Attention is directed to the fact that the values shown in the tables herein refer only to the production of primary industries and factories, and exclude the building and construction industry, those industrial establishments not classified as factories, and certain agricultural and farmyard produce obtained from areas of less than one acre.

The following is a brief explanation of the terms used:—

- (a) *Gross Value of Production* is the value placed on recorded production at the wholesale price realized at the principal markets. In cases where primary products are consumed at the place of production or where they become raw material for a secondary industry, these points of consumption are presumed to be the principal markets.
- (b) *Local Value* (i.e., the gross production valued at the place of production) is ascertained by deducting marketing costs from the gross value. Marketing costs include freight, cost of containers, commission, and other charges incidental thereto.
- (c) *Net Value of Production* represents local value less value of materials used in the process of production. Materials used in the process of production include seed, power, power kerosene, petrol and other oils, fodder consumed by farm stock, manures, dips, sprays and other costs. No deductions have been made for depreciation or certain maintenance costs as particulars are not available for all States. The Net Value of Production is the only satisfactory measure to use when comparing or combining the value of primary industries with those of other industries.

For the years shown in the following tables, no allowance for power, power kerosene, petrol and other oils has been made in New South Wales; and in the case of Tasmania, allowance for these items has been made in 1958–59 and 1959–60 only. In the case of the mining and quarrying industry, however, this allowance has been made throughout. Costs of materials used in the process of production are not available for all States in respect of Bee-farming, Trapping, Forestry and Fisheries, and local values have been used for these industries with consequent overstatement in net values.

2. Value of Production, Australia, 1959-60.—The following table shows particulars of the gross, local and net values of production in Australia by industries during the year 1959-60.

GROSS, LOCAL AND NET VALUE OF PRODUCTION OF PRIMARY INDUSTRIES AND FACTORIES : AUSTRALIA, 1959-60.

(£'000.)

Industry.	Gross Production Valued at Principal Markets.	Local Value— Gross Production Valued at Place of Production.	Net Value of Production (with- out deduction of depreciation or maintenance).
Agriculture	410,354	347,395	291,951
Pastoral	637,594	585,687	536,215
Dairying	212,696	197,106	152,193
Poultry	59,837	53,093	30,424
Bee-farming	2,545	2,073	(a) 2,060
<i>Total, Rural</i>	<i>1,323,026</i>	<i>1,185,354</i>	<i>1,012,843</i>
Trapping	7,721	6,881	(a) 6,881
Forestry	57,700	53,859	(a) 53,859
Fishing and Whaling	13,623	12,325	(a) 12,325
Mines and Quarries	(a) 164,985	164,985	126,155
<i>Total, Non-rural</i>	<i>244,029</i>	<i>238,050</i>	<i>199,220</i>
<i>Total All Primary Factories</i>	<i>1,567,055</i> (b) 2,074,882	<i>1,423,404</i> (b) 2,074,882	<i>1,212,063</i> 2,074,882
<i>Total, All Industries</i>	<i>3,641,937</i>	<i>3,498,286</i>	<i>3,286,945</i>

(a) Local value.

(b) Net value.

3. Net Value of Production, States, 1959-60.—The following tables show the total net value of production, and the net value per head of population, for each industry and State during the year 1959-60:—

NET(a) VALUE OF PRODUCTION OF PRIMARY INDUSTRIES AND FACTORIES, 1959-60.

(£'000.)

Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Australia
Agriculture ..	78,518	68,912	65,357	24,246	44,044	10,645	79	150	291,951
Pastoral ..	198,380	135,630	99,884	50,067	39,659	7,846	3,826	923	536,215
Dairying ..	55,963	47,469	28,557	9,153	3,933	6,945	23	150	152,193
Poultry ..	12,292	14,636	856	1,508	471	525	70	66	30,424
Bee-farming(b) ..	1,030	428	166	(c) 251	161	22	..	2	2,060
<i>Total, Rural</i> ..	<i>346,183</i>	<i>267,075</i>	<i>194,820</i>	<i>85,225</i>	<i>88,268</i>	<i>25,983</i>	<i>3,998</i>	<i>1,291</i>	<i>1,012,843</i>
Trapping(b) ..	2,204	3,492	352	443	101	284	5	..	6,881
Forestry(b) ..	15,169	15,476	8,469	3,929	5,085	5,556	25	150	53,859
Fishing and Whaling(b) ..	3,101	1,771	1,448	975	4,276	683	71	..	12,325
Mining and Quarrying ..	56,331	12,101	24,481	10,698	14,765	5,398	2,202	179	126,155
<i>Total, Non-rural</i> ..	<i>76,805</i>	<i>32,840</i>	<i>34,750</i>	<i>16,045</i>	<i>24,227</i>	<i>11,921</i>	<i>2,303</i>	<i>329</i>	<i>199,220</i>
<i>Total, All Primary Factories</i> ..	<i>422,988</i> 916,446	<i>299,915</i> 686,501	<i>229,570</i> 162,392	<i>101,270</i> 162,973	<i>112,495</i> 86,374	<i>37,904</i> 60,196	<i>6,301</i> ..	<i>1,620</i> ..	<i>1,212,063</i> 2,074,882
<i>Total, All Industries</i> ..	<i>1,339,434</i>	<i>986,416</i>	<i>391,962</i>	<i>264,243</i>	<i>198,869</i>	<i>98,100</i>	<i>6,301</i>	<i>1,620</i>	<i>3,286,945</i>

(a) See letterpress on p. 1119.

(b) Local value.

(c) Net value.

**NET(a) VALUE OF PRODUCTION OF PRIMARY INDUSTRIES AND FACTORIES
PER HEAD OF POPULATION, 1959-60.
(£ s. d.)**

Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia- (b)
Agriculture ..	20 14 0	24 3 5	45 2 8	25 19 5	60 14 10	30 12 11	28 14 2
Pastoral ..	52 6 2	47 11 5	68 19 5	53 12 7	54 13 10	22 11 8	52 14 7
Dairying ..	14 15 2	16 13 0	19 14 5	9 16 1	5 8 6	20 0 0	14 19 4
Poultry ..	3 4 10	5 2 8	0 11 10	1 12 4	0 13 0	1 10 3	2 19 10
Bee-farming(c) ..	0 5 5	0 3 0	0 2 3	d 0 5 4	0 4 5	0 1 3	0 4 1
<i>Total, Rural ..</i>	<i>91 5 7</i>	<i>93 13 6</i>	<i>134 10 7</i>	<i>91 5 9</i>	<i>121 14 7</i>	<i>74 16 1</i>	<i>99 12 0</i>
Trapping(c) ..	0 11 8	1 4 6	0 4 10	0 9 6	0 2 10	0 16 4	0 13 7
Forestry(c) ..	4 0 0	5 8 6	5 17 0	4 4 2	7 0 3	15 19 10	5 5 11
Fishing and Whaling	0 16 4	0 12 5	1 0 0	1 0 11	5 17 11	1 19 4	1 4 3
Mines and Quarries	14 17 0	4 4 11	16 18 1	11 9 2	20 7 3	15 10 10	12 8 1
<i>Total, Non-rural..</i>	<i>20 5 0</i>	<i>11 10 4</i>	<i>23 19 11</i>	<i>17 3 9</i>	<i>33 8 3</i>	<i>34 6 4</i>	<i>19 11 10</i>
<i>Total, All Primary Factories ..</i>	<i>111 10 7 241 12 9</i>	<i>105 3 10 240 15 8</i>	<i>158 10 6 112 2 9</i>	<i>108 9 6 174 11 6</i>	<i>155 2 10 119 2 4</i>	<i>109 2 5 173 6 1</i>	<i>119 3 10 204 0 9</i>
<i>Total, All Industries</i>	<i>353 3 4</i>	<i>345 19 6</i>	<i>270 13 3</i>	<i>283 1 0</i>	<i>274 5 2</i>	<i>282 8 6</i>	<i>323 4 7</i>

(a) See letterpress on p. 1119.

(b) Includes N.T. and A.C.T.

(c) Local value.

(d) Net

4. Net Value of Production, Australia, 1955-56 to 1959-60.—The following table shows the net value of production for Australia during the years 1955-56 to 1959-60.

**NET(a) VALUE OF PRODUCTION OF PRIMARY INDUSTRIES AND
FACTORIES : AUSTRALIA.
(£'000.)**

Industry.	1955-56.	1956-57.	1957-58.	1958-59.	1959-60.
Agriculture ..	279,455	254,861	244,530	328,943	291,951
Pastoral ..	446,780	597,681	447,247	443,622	536,215
Dairying ..	154,905	140,792	127,624	141,944	152,193
Poultry ..	30,185	28,402	27,326	27,360	30,424
Bee-farming(b) ..	1,751	2,254	1,566	1,605	2,060
<i>Total, Rural ..</i>	<i>913,076</i>	<i>1,023,990</i>	<i>848,293</i>	<i>943,474</i>	<i>1,012,843</i>
Trapping(b) ..	6,047	6,013	6,027	6,362	6,881
Forestry(b) ..	50,059	52,099	51,306	52,273	53,859
Fishing and Whaling(b)	8,884	10,506	10,402	11,243	12,325
Mines and Quarries ..	132,510	139,982	126,802	118,336	126,155
<i>Total, Non-rural ..</i>	<i>197,500</i>	<i>208,600</i>	<i>194,537</i>	<i>188,214</i>	<i>199,220</i>
<i>Total, All Primary Factories ..</i>	<i>1,110,576 1,500,714</i>	<i>1,232,590 1,622,120</i>	<i>1,042,830 1,728,723</i>	<i>1,131,688 1,842,601</i>	<i>1,212,063 2,074,882</i>
<i>Total, All Industries</i>	<i>2,611,290</i>	<i>2,854,710</i>	<i>2,771,553</i>	<i>2,974,289</i>	<i>3,286,945</i>

(a) See letterpress on p. 1119.

(b) Local value.

In the chapters dealing with the respective industries tables will be found showing the total value of production and the value per head of population for the industry by States for a series of years up to 1959-60.

§ 2. Indexes of Production.

In the first two tables in this section, indexes of price and quantum (i.e. value at constant prices) of production are given for the following industrial groups:—Agriculture, Pastoral, Farmyard and Dairying, and All Farming combined (including separate indexes for Wool and Products other than Wool). In the third table, indexes of quantum (i.e., value at constant prices) of production, exports and consumption of farm products for food use are shown.

1. **Farm Production Prices Indexes.**—The Farm Production Price Indexes shown in the following table relate to average “prices” of agricultural, pastoral, farmyard and dairying products realized at the principal markets of Australia. The “price” data used are average unit values for the total quantities of the relevant commodities produced or marketed in each year and the index numbers therefore measure both the effects of changes in prices (as such) and of variations in the quality, type, usage, etc., of products marketed. The index numbers for any year relate to the average values of products produced or marketed in that year, irrespective of the periods in which payment is received by producers.

The indexes have been calculated by the fixed-base weighted aggregative method. “Prices” for each commodity in any year are obtained by dividing gross value of production by the quantity produced in that year. In the original published series of Production Price Index Numbers, the average quantities of the relevant commodities *produced* in the period 1923–24 to 1927–28 were used as fixed weights. This series, re-computed to the base, average 1936–37 to 1938–39 = 100, was published in earlier issues of the Official Year Book (see No. 43, p. 1050). For 1936–37 and later years, the original series was replaced in December, 1952, by a revised series in which average quantities of each product *marketed* during the period 1946–47 to 1950–51 were used as fixed weights. In the revised series, the regimen was extended and modified to include farm products (as defined by Australian Statisticians) in all cases. Certain other refinements were also incorporated in the revised indexes, the principal of which was the omission from the weights used for the All Farming Index of quantities of crops marketed for livestock feeding in Australia.

**FARM PRODUCTION : INDEXES OF PRICES AT PRINCIPAL MARKETS,
AUSTRALIA.**

(Base: Average 1936–37 to 1938–39 = 100.)

Year.	Agri- culture.	Pastoral.	Farm- yard and Dairying.	All Farming.	Wool (Shorn and Dead).	Products other than Wool.
1940–41	106	107	105	107	102	108
1941–42	111	108	107	110	102	113
1942–43	131	123	130	128	118	132
1943–44	149	128	147	139	118	146
1944–45	151	128	152	142	118	150
1945–46	174	133	159	157	118	169
1946–47	194	182	157	185	187	185
1947–48	267	263	183	247	301	230
1948–49	234	313	197	260	366	225
1949–50	272	396	228	316	483	261
1950–51	291	818	258	505	1,098	308
1951–52	355	501	332	410	552	363
1952–53	364	531	387	440	623	379
1953–54	324	534	395	429	621	365
1954–55	316	489	371	401	540	355
1955–56	330	451	392	397	468	373
1956–57	336	536	386	432	607	374
1957–58	336	435	382	388	473	359
1958–59	322	396	386	369	370	369
1959–60	329	464	402	403	440	391

2. **Indexes of Quantum (i.e. Value at Constant Prices) of Farm Production.**—The indexes shown in the following table relate to gross output of farm products valued at constant prices. They have been calculated by revaluing quantities of each farm product included in the indexes at the average unit gross value of each product for the base years.

In the original published series, the period 1923–24 to 1927–28 was adopted as the base for revaluing each farm product. This series, re-computed to the base, average 1936–37 to 1938–39 = 100, was published in earlier issues of the Official Year Book (see No. 43, p. 1051). For 1936–37 and later years, the original series was replaced in December, 1952, by a revised series in which average unit values for the period 1936–37 to 1938–39 were used. The regimen used for the revised series was extended and modified to include farm products (as defined by Australian Statisticians) in all cases. Certain other refinements were incorporated in the revised indexes, the principal of which was the omission, in calculating the All Farming Index, of quantities of crops fed to livestock in Australia.

INDEXES OF QUANTUM^(a) OF FARM PRODUCTION, AUSTRALIA.

(Base: Average 1936–37 to 1938–39 = 100.)

Year.	Agri- culture.	Pastoral.	Farm- yard and Dairying.	All Farming.	Wool (Shorn and Dead).	Products other than Wool.
1940–41	74	109	107	97	115	91
1941–42	104	112	104	104	118	99
1942–43	97	114	103	102	116	98
1943–44	86	115	100	100	119	94
1944–45	68	101	99	88	101	84
1945–46	100	86	103	92	92	92
1946–47	84	92	103	91	95	90
1947–48	122	98	107	109	101	111
1948–49	108	105	111	109	108	109
1949–50	117	112	111	115	115	115
1950–51	108	109	106	109	116	107
1951–52	103	105	97	103	112	100
1952–53	121	126	108	121	131	118
1953–54	129	123	107	122	128	120
1954–55	120	127	117	123	132	120
1955–56	134	136	120	131	146	127
1956–57	120	148	117	131	164	121
1957–58	109	142	114	124	148	116
1958–59	165	159	119	149	164	145
1959–60	140	163	123	144	172	136

(a) Indexes of value at constant prices, i.e., quantities revalued at average unit values for the base years (see text preceding table).

3. **Farm Products for Food Use: Indexes of Quantum (i.e. Value at Constant Prices) of Production, Exports and Consumption.**—The indexes shown in the following table have been calculated by revaluing quantities of each farm product included in the indexes at the average unit gross value of each product for the years 1936–37 to 1938–39. The items included comprise products in the form in which they are sold from farms in all cases except livestock sold for slaughter for meat, which are included in terms of dressed carcass weight of meat. Quantity data relating to exports include exports of processed food in terms of farm product equivalent. The indexes of production relate basically to gross output of farm products for food use, including crops exported for stock-feeding overseas. Particulars are not available prior to 1946–47 except for the base years.

**FARM PRODUCTS FOR FOOD USE: INDEXES OF QUANTUM^(a) OF
PRODUCTION, EXPORTS AND CONSUMPTION.**

(Base: Average 1936-37 to 1938-39 = 100.)

Year.	Production.		Exports.		Consumption in Australia.	
	Total.	Per Head of Total Population.	Total.	Per Head of Total Population.	Total.	Per Head of Total Population.
1946-47.. ..	90	82	73	66	107	98
1947-48.. ..	113	102	113	102	110	99
1948-49.. ..	110	97	112	99	111	98
1949-50.. ..	116	99	116	99	114	98
1950-51.. ..	109	90	104	86	120	99
1951-52.. ..	100	81	70	57	119	96
1952-53.. ..	118	93	113	89	119	94
1953-54.. ..	122	94	102	79	124	96
1954-55.. ..	121	91	117	89	127	96
1955-56.. ..	129	95	131	97	131	97
1956-57.. ..	123	88	118	85	137	98
1957-58.. ..	115	81	90	64	139	98
1958-59.. ..	146	101	137	94	142	98
1959-60(b) ..	138	93	140	95	145	98

(a) Indexes of value at constant prices, i.e., quantities revalued at average unit values for the base years, 1936-37 to 1938-39. (b) Subject to revision.

§ 3. Consumption of Foodstuffs and Beverages.

1. **Quantities Consumed.**—The estimates of total consumption and consumption per head of population in Australia in the two tables which follow have been compiled by deducting net exports from the sum of production and imports and allowing for recorded movements in stocks of the respective commodities. While the estimates may be generally accepted as reasonably accurate, there are some deficiencies to which attention should be directed. These relate chiefly to the quantities of poultry, game and fish (fresh and shell) and the quantities of visible oils and other fats entering consumption. In addition, little information is available on the quantities of vegetables, fruit, eggs, etc., which householders produce for their own requirements and the extent of wastage occurring in the marketing of foodstuffs. In all these cases, careful estimates have been compiled from the best available data, and the quantities shown as entering consumption in Australia have been adjusted to allow for these circumstances. The absence of particulars for stocks of certain commodities has resulted in some inaccuracies in the estimates of annual consumption. Consumption of foodstuffs is measured in general at "producer" level. As a result, no allowance is made for wastage before the foodstuffs are consumed. In recent years, wastage of foodstuffs has possibly been less than hitherto because of more efficient distribution and storage methods. Furthermore, it is likely that the quantities of foodstuffs shown in the following pages as available for consumption have been supplemented by an increase in the aforesaid production by householders for their own requirements. Neither of these factors has been taken into account, and it is possible that, as a result, some understatement has occurred in the following consumption estimates. Except in a few special cases, no adjustment has been made for changes in stocks held by wholesalers and retailers. Where no allowance is made, it is considered unlikely that these stocks would make any appreciable difference to consumption estimates. Allowance has not been made for the purchase of foodstuffs for dispatch overseas as gifts in bulk and by parcel post. These deficiencies, however, do not seriously impair the accuracy of the estimates compiled.

The estimates of consumption per head of population shown in the second of the following tables have been derived by dividing the total apparent consumption of each commodity or commodity group in a given year by the mean population of Australia in the same period.

More detailed information on the consumption of foodstuffs and beverages is contained in the statistical bulletin: *Report on Food Production and the Apparent Consumption of Foodstuffs and Nutrients in Australia*, issued by this Bureau.

The following tables show the average annual consumption during the three year periods ended 1938-39, 1948-49, and 1958-59, together with the data for each of the years 1957-58, 1958-59 and 1959-60.

ESTIMATED QUANTITY OF FOODSTUFFS AND BEVERAGES AVAILABLE FOR CONSUMPTION ANNUALLY: AUSTRALIA.

Commodity.	Unit of Quantity.	Average three years ended—			1957-58.	1958-59.	1959-60. (a)
		1938-39.	1948-49.	1958-59.			
Milk and Milk Products—							
Fluid Whole Milk ..	Mill. gals.	161	233	226	275	281	290
Fresh Cream ..	'000 tons	19.7	5.1	6.7	6.7	8.9	9.1
Full Cream Milk Products—							
Condensed, Concentrated and Evaporated Full Cream Milk—							
Sweetened ..	"	13.2	11.9	11.3	13.1	9.8	12.1
Unsweetened ..	"		13.6	27.6	28.1	28.5	30.4
Powdered Full Cream Milk ..	"	8.1	11.0	11.0	12.6	10.8	12.1
Infants and Invalids Foods ..	"	3.0	4.3	9.4	10.1	9.7	13.0
Milk By-Products—							
Condensed, Concentrated and Evaporated Skim Milk and Butter-milk ..	"	(b)	(b)	5.6	7.3	4.9	4.7
Powdered Skim Milk ..	"		1.9	10.7	9.3	13.1	16.4
Cheese ..	"	13.4	18.8	25.0	29.5	23.0	28.8
Total (in terms of Milk Solids) ..	"	120.5	167.4	212.4	216.2	215.7	230.8
Meat—							
Beef (carcass weight) ..	"	430.3	372.7	538.4	544.2	522.3	442.4
Mutton (carcass weight) ..	"	184.1	154.0	221.6	220.7	244.8	289.0
Lamb (carcass weight) ..	"	46.0	86.1	127.7	123.6	141.7	176.8
Pork (carcass weight) ..	"	31.8	24.3	43.9	47.2	47.6	47.2
Offal ..	"	25.7	30.3	49.7	51.2	53.9	52.8
Canned Meat (canned weight) ..	"	6.5	9.0	17.9	19.5	21.0	18.7
Bacon and Ham (cured carcass weight) ..	"	31.5	39.9	30.3	30.3	31.7	31.7
Total (in terms of carcass equivalent weight) ..	"	775.5	736.9	1,054.1	1,064.0	1,088.2	1,078.5
Poultry, Game and Fish—							
Poultry and Rabbits (carcass weight) ..	"	29.8	54.0	65.9	65.9	67.3	68.4
Fish (c)—							
Fresh—							
Australian origin ..	"	19.7	19.4	13.8	13.4	13.8	14.7
Imported ..	"			9.0	9.4	10.0	14.4
Cured (including Smoked and Salted) ..	"	(d)	(d)	3.8	5.5	3.6	5.0
Crustaceans and Molluscs ..	"	2.1	2.1	3.8	3.4	4.1	4.6
Canned—Australian origin ..	"	12.4	10.5	3.3	2.8	3.6	3.5
Imported ..	"			7.4	7.8	7.4	9.0
Total (edible weight) ..	"	51.5	63.2	79.2	80.5	81.3	91.1
Eggs and Egg Products—							
Shell Eggs ..	"	78.7	86.5	92.1	91.3	93.3	98.1
Liquid Whole Egg (e) ..	"	2.9	8.6	5.7	5.3	5.6	6.9
Egg Powder (e) ..	"			0.2	0.1	0.3	0.3
Total (Shell Egg equivalent) ..	"	81.6	95.1	98.0	96.7	99.2	105.3
Fats and Oils—							
Butter ..	'000 tons	101.0	84.7	118.4	120.7	115.1	118.9
Margarine—							
Table ..	"	2.8	3.0	15.5	15.7	15.4	16.0
Other ..	"	12.2	18.7	21.2	21.0	22.9	25.9
Lard ..	"	5.2	4.2	5.1	5.3	5.5	5.4
Vegetable Oils and Other Fats ..	"	14.4	13.8	17.4	17.4	17.8	18.2
Total (Fat Content) ..	"	115.5	105.5	151.6	153.8	150.9	157.5

See next page for notes.

ESTIMATED QUANTITY OF FOODSTUFFS AND BEVERAGES AVAILABLE FOR CONSUMPTION ANNUALLY: AUSTRALIA—*continued.*

Commodity.	Unit of Quantity.	Average three years ended—			1957-58.	1958-59.	1959-60. (a)
		1938-39.	1948-49.	1958-59.			
Sugar and Syrups—							
Refined Sugar—							
As Sugar—	'000 tons	216.5	234.6	259.0	249.1	270.2	250.8
In manufactured products ..	"	110.1	174.2	226.1	231.0	227.1	253.5
Honey, Glucose and Syrups (Sugar content)	"	17.3	19.1	22.8	20.9	23.7	26.6
<i>Total (Sugar Content)</i>	"	343.9	427.9	507.9	501.0	521.0	530.9
Pulse and Nuts—							
Dried Pulse	"	4.5	7.2	11.0	8.9	10.2	8.1
Peanuts (weight without shell)	"	2.8	8.7	7.2	10.4	8.3	12.3
Edible Tree Nuts (weight with- out shell)	"	2.6	4.4	6.7	6.9	7.3	7.0
Cocoa (Raw Beans)	"	6.3	11.6	12.1	11.7	12.1	13.9
<i>Total</i>	"	16.2	31.9	37.0	37.9	37.9	41.3
Fruit—							
Citrus Fruit (f)	"	97.8	127.2	153.8	152.3	149.6	186.4
Other Fresh Fruit	"	288.2	297.5	341.4	352.5	368.8	390.1
Jams	"	35.1	42.5	37.5	34.5	36.5	39.1
Dried Fruit	"	24.8	30.4	26.4	30.9	25.6	30.4
Canned Fruit	"	31.9	37.3	59.4	63.9	57.7	69.6
<i>Total (Fresh Fruit equivalent)</i>	"	532.3	607.9	691.4	728.7	704.5	801.4
Vegetables—							
Leafy and Green Vegetables ..	"	(b)	154.0	172.1	169.2	172.8	175.2
Tomatoes(f)	"	(g) 48.0	86.3	125.4	113.2	125.5	114.6
Root and Bulb Vegetables ..	"	(b)	143.7	152.8	165.2	142.4	145.3
Potatoes—							
White	"	318.5	424.3	495.7	515.7	511.9	522.2
Sweet	"	7.4	5.3	6.1	6.1	6.2	6.4
Other Vegetables	"	(b)	162.8	178.4	181.2	178.7	162.7
<i>Total</i>	"	(b)	976.4	1,130.5	1,150.6	1,137.5	1,126.4
Grain Products—							
Flour (including Wheatmeal for baking and Sharps)	"	574.0	689.7	789.1	788.5	787.4	804.6
Breakfast Foods	"	32.5	41.8	58.8	58.1	56.4	60.4
Rice (Milled)	"	12.2	3.0	16.1	16.1	16.4	16.8
Tapioca, Sago, etc.	"	3.7	2.3	1.4	1.9	1.0	1.3
Pearl Barley	"	3.0	1.7	2.0	1.9	1.9	2.0
Barley Meal and Polished Wheat (Rice substitute)	"	..	1.6	0.5	0.5	0.5	0.1
Edible Starch (Cornflour) ..	"	4.3	4.9	2.7	2.5	2.2	2.4
<i>Total</i>	"	629.7	745.0	870.6	869.5	865.8	887.6
Beverages—							
Tea	"	21.1	22.1	26.1	26.1	26.0	27.0
Coffee	"	2.0	3.4	7.4	6.6	8.9	9.9
Beer	Mil. gals.	80.1	129.5	221.0	224.1	220.7	230.1
Wine	"	4.2	9.8	11.1	11.1	11.4	11.7
Spirits	Mil. pf. gals.	1.5	2.4	2.8	2.7	2.9	3.3

(a) Subject to revision. (b) Not available. (c) Edible weight. (d) Included with fresh.
 (e) In terms of weight of shell eggs. (f) Includes fresh equivalent of manufactured products.
 (g) Probably understated owing to lack of complete data.

ESTIMATED QUANTITY OF FOODSTUFFS AND BEVERAGES AVAILABLE FOR CONSUMPTION ANNUALLY PER HEAD OF POPULATION: AUSTRALIA.

Commodity.	Unit of Quantity.	Average three years ended—			1957-58.	1958-59.	1959-60. (a)
		1938-39.	1948-49.	1958-59.			
Milk and Milk Products—							
Fluid Whole Milk	Gallon	23.4	30.5	28.3	28.2	28.2	28.6
Fresh Cream	lb.	6.1	1.5	2.0	2.0	2.0	2.0
Full Cream Milk Products—							
Condensed, Concentrated and Evaporated Full Cream Milk—							
Sweetened	"	4.2	3.5	2.6	3.0	2.2	2.7
Unsweetened	"						
Powdered Full Cream Milk ..	"	2.6	3.2	2.5	2.9	2.4	2.7
Infants and Invalids Foods ..	"	1.0	1.3	2.2	2.3	2.2	2.9
Milk By-Products—							
Condensed, Concentrated and Evaporated Skim Milk and Butter-milk	"	(b)	(b)	1.3	1.7	1.1	1.0
Powdered Skim Milk	"	4.4	5.5	5.7	6.8	5.2	3.6
Cheese	"	4.4	5.5	5.7	6.8	5.2	6.3
<i>Total (in terms of Milk Solids)</i>	"	39.3	49.1	48.7	49.6	48.4	51.0
Meat—							
Beef (carcass weight)	"	140.3	109.1	123.8	125.1	117.6	97.4
Mutton (carcass weight)	"	60.0	45.1	50.9	50.7	55.1	63.7
Lamb (carcass weight)	"	15.0	25.2	29.4	28.4	31.9	38.9
Pork (carcass weight)	"	10.4	7.1	10.1	10.9	10.7	10.4
Offal	"	8.4	8.9	11.4	11.8	12.1	11.6
Canned Meat (canned weight) ..	"	2.1	2.6	4.1	4.5	4.7	4.1
Bacon and Ham (cured carcass weight)	"	10.2	11.7	7.0	7.0	7.1	7.0
<i>Total (in terms of carcass equivalent weight)</i>	"	252.8	215.7	242.3	244.6	244.9	237.5
Poultry, Game and Fish—							
Poultry and Rabbits (carcass weight)	"	9.7	15.8	15.1	15.1	15.1	15.1
Fish(c)—							
Fresh—							
Australian origin	"	6.4	5.7	3.2	3.1	3.1	3.2
Imported	"						
Cured (including Smoked and Salted)	"	(d)	(d)	0.9	1.3	0.8	1.1
Crustaceans and Molluscs ..	"	0.7	0.6	0.9	0.8	0.9	1.0
Canned—							
Australian origin	"	4.1	3.0	0.8	0.7	0.8	0.8
Imported	"						
<i>Total (Edible Weight)</i>	"	16.8	18.5	18.2	18.6	18.3	20.1
Eggs and Egg Products—							
Shell Eggs	"	25.7	25.4	21.2	21.0	21.0	21.6
Liquid Whole Egg(e)	"	0.9	2.5	1.3	1.2	1.3	1.5
Egg Powder(e) .. ..	"	..	..	..	..	0.1	0.1
<i>Total (Shell Egg equivalent)</i>	No.	26.6	27.9	22.5	22.2	22.4	23.2
Fats and Oils—							
Butter	lb.	32.9	24.8	27.2	27.8	25.9	26.2
Margarine—							
Table	"	0.9	0.9	3.6	3.6	3.5	3.5
Other	"	4.0	5.2	4.9	4.8	5.1	5.7
Lard	"	1.7	1.2	1.2	1.2	1.2	1.2
Vegetable Oils and other Fats ..	"	4.7	4.1	4.0	4.0	4.0	4.0
<i>Total (Fat Content)</i>	"	37.6	30.9	35.5	35.3	33.8	34.7
Sugar and Syrups—							
Refined Sugar—							
As Sugar	"	70.6	68.7	60.3	59.5	60.8	55.2
In manufactured products ..	"	35.9	51.0	52.0	53.1	51.1	55.8
Honey, Glucose and Syrups (Sugar Content)	"	5.5	5.6	5.2	4.7	5.2	5.8
<i>Total (Sugar Content)</i>	"	112.0	125.3	117.5	117.3	117.1	116.8

See next page for notes.

**ESTIMATED QUANTITY OF FOODSTUFFS AND BEVERAGES AVAILABLE
FOR CONSUMPTION ANNUALLY PER HEAD OF POPULATION:
AUSTRALIA—continued.**

Commodity.	Unit of Quantity.	Average (three years ended—			1957-58.	1958-59.	1959-60. (a)
		1938-39.	1948-49.	1958-59.			
Pulse and Nuts—							
Dried Pulse	lb.	1.5	2.0	2.6	2.1	2.3	1.8
Peanuts (weight without shell)	"	0.9	2.5	1.7	2.4	1.9	2.7
Edible Tree Nuts (weight without shell)	"	0.8	1.3	1.5	1.6	1.6	1.5
Cocoa (Raw Beans)	"	2.1	3.4	2.7	2.7	2.5	3.1
<i>Total</i>	<i>"</i>	<i>5.3</i>	<i>9.2</i>	<i>8.5</i>	<i>8.8</i>	<i>8.3</i>	<i>9.1</i>
Fruit—							
Citrus Fruit(f)	"	31.9	37.2	35.4	35.1	33.6	41.1
Other Fresh Fruit	"	94.0	87.1	78.4	81.0	83.0	85.9
Jams	"	11.4	12.4	8.6	7.9	8.2	8.6
Dried Fruit	"	8.1	8.7	6.0	7.0	5.7	6.7
Canned Fruit	"	10.4	11.0	13.6	14.6	13.0	15.3
<i>Total (Fresh Fruit equivalent)</i>	<i>"</i>	<i>173.6</i>	<i>178.0</i>	<i>157.6</i>	<i>167.4</i>	<i>158.5</i>	<i>176.5</i>
Vegetables—							
Leafy and Green Vegetables.	"	(b)	45.1	39.5	38.8	38.8	38.6
Tomatoes(f)	"	(g) 15.7	25.3	28.9	26.0	28.3	25.2
Root and Bulb Vegetables	"	(b)	42.1	35.1	38.0	32.1	32.0
Potatoes—							
White	"	103.8	124.2	113.8	118.5	115.2	115.0
Sweet	"	2.4	1.5	1.4	1.4	1.4	1.4
Other Vegetables	"	(b)	47.7	41.0	41.6	40.2	35.8
<i>Total</i>	<i>"</i>	<i>(b)</i>	<i>285.9</i>	<i>259.7</i>	<i>264.3</i>	<i>256.0</i>	<i>248.0</i>
Grain Products—							
Flour (including Wheatmeal for baking and Sharps)	"	187.1	201.9	181.4	181.2	177.2	177.2
Breakfast Foods	"	10.6	12.2	13.5	13.3	12.7	13.3
Rice (milled)	"	4.0	0.9	3.7	3.7	3.7	3.7
Tapioca, Sago, etc.	"	1.2	0.7	0.3	0.4	0.2	0.3
Pearl Barley	"	1.0	0.5	0.4	0.4	0.4	0.4
Barley Meal and Polished Wheat (Rice substitute)	"	"	0.5	0.1	0.1	0.1	(h)
Edible Starch (Cornflour)	"	1.4	1.4	0.6	0.6	0.5	0.5
<i>Total</i>	<i>"</i>	<i>205.3</i>	<i>218.1</i>	<i>200.0</i>	<i>199.7</i>	<i>194.8</i>	<i>195.4</i>
Beverages—							
Tea	"	6.9	6.5	6.0	6.0	5.8	6.0
Coffee	"	0.6	1.0	1.7	1.5	2.0	2.2
Beer	Gallon	11.7	16.9	22.7	23.0	22.2	22.6
Wine	"	0.6	1.3	1.1	1.1	1.1	1.2
Spirits	Pr. gal.	0.2	0.3	0.3	0.3	0.3	0.3

(a) Subject to revision. (b) Not available. (c) Edible weight. (d) Included with fresh.
 (e) In terms of weight of shell eggs. (f) Includes fresh equivalent of manufactured products,
 (g) Probably understated owing to lack of complete data. (h) Less than 0.05 lb.

2. **Level of Nutrient Intake.**—The table below shows details of the estimated supplies of nutrients available for consumption in Australia during annual periods since 1957-58 in comparison with the annual average for the three-year periods ended 1938-39, 1948-49 and 1958-59. The table has been compiled by the Nutrition Section of the Commonwealth Department of Health and is based on the estimates of the quantity of foodstuffs available for consumption per head of population shown in the preceding table.

ESTIMATED SUPPLIES OF NUTRIENTS AVAILABLE FOR CONSUMPTION:
AUSTRALIA..

(Per Head per Day.)

Nutrient.	Unit.	Average three years ended—			1957-58.	1958-59.	1959-60. (a)
		1938-39.	1948-49.	1958-59.			
Calories- ..	No.	3,117	3,245	3,297	3,307	3,294	3,325
Protein—							
Animal ..	gm.	58.7	57.4	59.6	59.3	60.3	60.5
Vegetable ..	"	30.9	35.3	32.3	32.2	32.3	32.2
Total ..	"	89.6	92.7	91.9	91.5	92.6	92.7
Fat. ..	"	133.5	121.7	131.7	131.4	133.4	135.3
Carbohydrate ..	"	377.4	424.8	416.7	419.6	412.0	415.3
Calcium ..	mgm.	642	785	817	827	818	854
Iron ..	"	15.4	15.1	14.0	14.0	14.1	14.0
Vitamin A ..	I.U.	8,457	7,982	7,876	7,937	7,501	7,374
Ascorbic Acid ..	mgm.	86	96	89	89	88	90
Thiamine ..	"	1.4	1.5	1.3	1.3	1.3	1.3
Riboflavin ..	"	1.7	1.9	1.8	1.8	1.8	1.9
Niacin ..	"	18.7	17.6	18.6	18.4	19.0	18.9

(a) Subject to revision.

NOTE.—The conversion factors used are based on factors contained in the "Table of Composition of Australian Foods" (Anita Osmond and Winifred Wilson, Canberra, 1954).

§ 4. Patents, Trade Marks and Designs.

1. *Patents.*—(i) *General.* Patents for inventions are granted under the Patents Act 1952-1960, which applies to the Commonwealth of Australia and the Territories of Norfolk Island, Papua and New Guinea. The Act is administered by a Commissioner of Patents. The principal fees payable up to and including the grant of a patent amount to £19 10s. Renewal fees are payable as follows:—£5 before the expiration of the fourth year, and an amount progressively increasing by £1 before the expiration of each succeeding year up to the final fee of £16, payable before the expiration of the fifteenth year. An extension of time for six months for payment of a renewal fee may be obtained.

(ii) *Summary.* The number of separate inventions in respect of which applications were filed and the number of letters patent sealed during the years 1956 to 1960 are shown in the following table.

PATENTS : AUSTRALIA.

Particulars.	1956.	1957.	1958.	1959.	1960.
Applications ..	9,396	9,899	10,511	11,430	11,828
Applications accompanied by provisional specifications ..	3,465	3,683	3,919	4,063	3,772
Letters patent sealed ..	6,056	6,407	6,093	5,488	4,857

2. *Trade Marks and Designs.*—(i) *Trade Marks.* Under the Trade Marks Act, 1955-1958 the Commissioner of Patents is also Registrar of Trade Marks. This Act has replaced the Trade Marks Act 1905-1948.

Provision is made for the registration of users of Trade Marks and for their assignment with or without the goodwill of the business concerned.

A new classification of goods has been adopted and Trade Marks registered under the repealed Acts are reclassified on renewal.

(ii) *Designs.* Under the Designs Act 1906–1950, the Commissioner of Patents is also Registrar of Designs.

(iii) *Summary.* The following table shows the applications for trade marks and designs received and registered during the years 1956 to 1960.

TRADE MARKS AND DESIGNS : AUSTRALIA.

Particulars.	1956.	1957.	1958.	1959.	1960.
Trade Marks—					
Received	4,402	4,589	5,331	5,436	6,083
Registered	5,360	3,569	4,219	3,792	3,203
Designs—					
Received	1,130	1,394	1,362	1,366	1,283
Registered	458	917	1,758	819	1,507

3. *Revenue.*—Revenue of the Commonwealth Patent, Trade Marks, Design and Copyright Offices for the years 1956 to 1960 was as follows:—1956, £293,918; 1957, £302,279; 1958, £347,659; 1959, £348,523; 1960, £417,047.

§ 5. Copyright.

1. *Legislation.*—Copyright is regulated by the Commonwealth Copyright Act 1912–1950 wherein, subject to modifications relating to procedure and remedies, the British Copyright Act of 1911 has been adopted and scheduled to the Australian Law. The Act is administered by the Commissioner of Patents.

Reciprocal protection of unpublished works was extended in 1918 to citizens of Australia and of the United States of America, under which copyright may be secured in the latter country by registration at the Library of Congress, Washington. The Commonwealth Government promulgated a further Order in Council which came into operation on 1st February, 1923, and extended the provisions of the Copyright Act to the foreign countries of the Copyright Union, subject to the observance of the conditions contained therein.

2. *Applications and Registrations.*—The following table shows under the various headings the number of applications for copyright lodged and registered for the years 1956 to 1960.

COPYRIGHT : AUSTRALIA.

Particulars.	1956.	1957.	1958.	1959.	1960.
Applications lodged—					
Literary	1,059	1,064	1,078	1,153	1,042
Artistic	22	38	74	65	53
International .. ..	..	..	..	..	..
Applications registered—					
Literary	521	870	1,100	1,038	916
Artistic	17	26	38	47	61
International .. ..	..	..	..	..	..

§ 6. Australian Shipbuilding Board.

1. *Constitution.*—Originally established in 1941 under National Security Regulations, the Board has been reconstituted a number of times since its inception and in 1948 was constituted on a permanent basis under the Supply and Development Act. At present, it operates under the control of the Minister for Shipping and Transport. The membership of the Board consists of a Chairman, a Deputy Chairman, a Finance Member and two other members, one of whom represents the Naval Board.

2. Functions.—The existing functions of the Board, which have been summarized in earlier issues of the *Official Year Book*, are set out in detail in regulation 22 (4) of the Supply and Development Regulations.

In April, 1960, the Government announced that legislation was to be introduced to re-define the Board's functions in the light of the acceptance by the Government of recommendations by the Tariff Board for continued Commonwealth assistance to the Australian shipbuilding industry. It is expected that the legislation will be introduced to Parliament at an early date.

At the same time, the Government decided that the present temporary staff organization, which has been carried on since establishment of the Board in 1941, would be replaced by a permanent organization. This would mean that superannuation and similar Public Service benefits would be available to members of the staff.

In the exercise of its functions, the Board is responsible for—(i) the design of vessels; (ii) the calling of tenders and placement of orders; (iii) co-ordination of the Board's supplies to shipbuilders, e.g., machinery and certain equipment; (iv) supervision of construction; (v) acceptance of vessels after sea trials; and (vi) administration associated with ship repairs, marine engines, spare parts, etc.

The Board is also responsible for recommending, within the limits prescribed by the Commonwealth Government, the amount of subsidy to be paid on merchant ships constructed in Australia. In April, 1956, the Government accepted a recommendation made by the Tariff Board that the maximum subsidy on ships built in Australia for the coastal trade should be increased from 25 per cent. to 33½ per cent. of the cost of construction. The method and level of assistance to the industry was again re-examined by the Tariff Board following the public hearings during November and December, 1958, and as a result of its examination, the Tariff Board recommended, and the Government accepted, that the present method of assistance to the shipbuilding industry be retained and the maximum rate of subsidy remain at 33½ per cent. of the cost of construction.

In order to take advantage of the subsidy, private shipowners are required to place their orders for vessels through the Board, which has thus become the ordering authority for all vessels built in Australian yards on which a subsidy is paid.

The Board has also undertaken the preparation of plans and drawings for most of the yards, as the level of ship construction in Australia does not warrant each yard employing specialists in naval architecture. In this way, the Board has assisted in raising the efficiency of the industry as a whole and also in the development of individual yards. (For a more detailed reference to the constitution and functions of the Board see *Official Year Book* No. 37, p. 1170).

In order to assist the shipbuilding industry further, the Board has also encouraged the construction of marine engines in Australia including steam engines and several well known types of diesel engines manufactured under licence. The larger marine diesel engines under construction at 1st May, 1961, were two "Sulzer" type of 10,500 b.h.p., three "Doxford" type, two of 5,500 b.h.p. and one of 4,640 b.h.p., and four "Polar" type of 1,310 b.h.p.

3. Construction Programme.—From its inception to 1st May, 1960, the Board had arranged for the construction of 68 vessels of over 300 gross tons and totalling 424,751 tons deadweight. During the war, the Board was also responsible for the construction of numerous small craft and a 1,000 ton floating dock.

Current orders at 1st May, 1961, placed by the Board, were for the construction of nine vessels totalling 131,400 deadweight tons. The vessels consisted of one 32,250 d.w.t. oil tanker on behalf of Ampol Petroleum Ltd., two bulk ore carriers of 21,000 d.w.t., and one of 19,000 d.w.t. on behalf of the Broken Hill Pty. Co. Ltd., two bulk ore carriers each of 16,400 d.w.t. on behalf of Bulkships Ltd., one 2,500 d.w.t. passenger/cargo vessel for the State Shipping Service of Western Australia, one 2,000 d.w.t. container vessel for Wm. Holyman & Sons Pty. Ltd., and one 850 d.w.t. roll-on roll-off passenger/cargo ferry for the Adelaide Steamship Co. Ltd.

In addition, orders have been placed by the Board for two 70-foot landing craft for the Department of the Army, and three new motor ships each of 1,700 tons for the Commonwealth Lighthouse Service.

§ 7. Commonwealth Scientific and Industrial Research Organization.

1. **General.**—By the Science and Industry Research Act 1949, the previously existing Commonwealth Council for Scientific and Industrial Research was re-organized under the title of the Commonwealth Scientific and Industrial Research Organization. An account of the organization and work of the former Council, and of the earlier Commonwealth Institute of Science and Industry from which the Council was formed, was given in earlier issues of the Official Year Book. (See No. 14, p. 1061 and No. 37, p. 1183.)

2. **Science and Industry Research Act 1949-1959.**—This Act provides for—

- (a) an Executive of the Organization consisting of nine members to be appointed by the Governor-General, at least five of whom shall be persons possessing scientific qualifications; and
- (b) an Advisory Council of the Organization, consisting of the members of the Executive, the Chairman of each State Committee constituted under the Act, and such other members as the Advisory Council, with the consent of the Minister, co-opts by reason of their scientific knowledge.

The powers and functions of the Organization are as follows:—(a) To initiate and carry out scientific research in connexion with primary or secondary industries in Australia; (b) to train research workers and to establish industrial research studentships and fellowships; (c) to make grants in aid of pure scientific research; (d) to establish and make grants to industrial research associations in any industry; (e) to test and standardize scientific apparatus and instruments; (f) to collect and disseminate scientific and technical information; (g) to publish scientific and technical reports and periodicals; and (h) to act as a means of liaison between Australia and other countries in matters of scientific research.

3. **Science and Industry Endowment Act 1926-1949.**—Under this Act, the Government established a fund of £100,000, the income from which is used to provide assistance (a) to persons engaged in scientific research; and (b) in the training of students in scientific research. Provision is made for gifts or bequests to the fund which is controlled by a trust consisting of the Executive of the Organization. In accordance with the Act, arrangements have been made to send a number of qualified graduates abroad for training in special fields of work.

4. **Work of the Organization.**—The activities of the Commonwealth Scientific and Industrial Research Organization have necessitated a widespread and adaptable arrangement of its research laboratories. Undesirable centralization has been avoided mainly in two ways. In the first place, the policy has been followed of establishing laboratories in different places in the Commonwealth wherever the necessary facilities, contacts and other suitable conditions could best be found. Secondly, the Act provides for the establishment of a State Committee in each of the six States. These Committees are widely representative of scientific and industrial interests, and advise the Executive or the Advisory Council on general matters and on particular questions of investigation and research.

For about twelve years after its establishment, the work of the previous Council was devoted mainly to the solution of problems affecting the agricultural and pastoral industries. Unlike manufacturing concerns, which often employ their own scientific staffs, the farmers and the pastoralists are dependent on outside help for the solution of their problems which require research. It was a recognition of the greater need of the primary producer which directed the Council's early policy. In 1937, however, the Commonwealth Government decided to extend the activities of the C.S.I.R. so as to provide assistance to secondary industries, and several laboratories have been established for work in that field; it was thus in the fortunate position of being able to render to these industries assistance of vital importance almost immediately after the outbreak of war. In fact, the remarkable technological advances and developments in secondary industrial production during the war would have been to a large extent impossible had it not been for the assistance rendered by scientific research, and this may well serve as a forceful illustration of what may be accomplished in times of peace.

For the purpose of carrying out its research work, there are established within the Organization a number of Divisions and Sections. The Divisions, of which there are now twenty-seven, comprise the major establishments for which special laboratory buildings have been erected and equipped; the Sections generally include establishments which have not reached a stage of development so far as the scope and magnitude of their operations are concerned, to justify their designation as Divisions. As the Organization's investigations

extend on a Commonwealth-wide basis, and as many of the investigations which are being conducted—particularly those concerned with problems affecting the agricultural and pastoral industries—necessitate experimental work in the field, a number of field stations are established in various parts of Australia.

The Divisions which have been established are as follows:—

Plant Industry, with main laboratories at Canberra and Brisbane and field stations.
 Entomology, with main laboratories at Canberra and field stations.
 Animal Health (main laboratory in Melbourne), Animal Genetics (main laboratory in Sydney) and Animal Physiology (main laboratory in Sydney) which together comprise the Animal Research Laboratories.
 Biochemistry and General Nutrition, with main laboratories at Adelaide and field stations.
 Soils, with main laboratories at Adelaide and extensive operations in the field.
 Forest Products, with main laboratories in Melbourne and field experiments.
 Food Preservation and Transport, with main laboratories at Homebush (New South Wales) and a subsidiary laboratory in Brisbane.
 Fisheries and Oceanography, with main laboratories at Cronulla (New South Wales), subsidiary laboratory at Thursday Island, and experimental work in coastal waters of Australia.
 Metrology, Physics and Electrotechnology, comprising the National Standards Laboratory at Sydney.
 Radiophysics, with main laboratory at Sydney.
 Physical Chemistry, Chemical Physics, Mineral Chemistry and Organic Chemistry, which together with the Sections of Cement and Refractories, and Chemical Engineering, comprise the Chemical Research Laboratories in Melbourne.
 Tribophysics, with laboratories in Melbourne.
 Building Research, with laboratories in Melbourne.
 Mathematical Statistics, with main laboratory in Adelaide.
 Meteorological Physics, with main laboratory and field station in Melbourne.
 Land Research and Regional Survey, with headquarters in Canberra, and field stations at Alice Springs and Katherine (Northern Territory) and Ivanhoe (Kimberley, Western Australia).
 Protein Chemistry (Melbourne), Textile Industry (Geelong, Victoria) and Textile Physics (Sydney), which together comprise the Wool Research Laboratories.
 Coal Research, Sydney.

The following are the Sections:—

Commonwealth Research Station, Murray Irrigation Area, Merbein (Victoria).
 Irrigation Research Station, Griffith (New South Wales).
 Upper Atmosphere, with laboratory at Camden (New South Wales).
 Dairy Research, Melbourne.
 Mineragraphic Investigations, Melbourne.
 Ore-dressing Investigations, Melbourne and Kalgoorlie.
 Fodder Conservation, Melbourne.
 Physical Metallurgy, Melbourne.
 Wildlife Survey, with main laboratory in Canberra, subsidiary laboratory at Albury and field experiments.
 Soil Mechanics, Melbourne.
 Engineering, Melbourne.
 Agricultural Research Liaison, Melbourne.
 Industrial Research Liaison, Melbourne.
 Editorial and Publications, Melbourne.

In addition to its investigational work, the Organization deals with inquiries covering a wide range of scientific and technical subjects and maintains Scientific Liaison Offices in London and Washington.

An Agricultural Research Liaison Section established at the Organization's Head Office assists in making results in agricultural research speedily available to State Departments of Agriculture for use in their extension work.

An Industrial Research Liaison Section has also been established at Head Office to foster liaison in the secondary and manufacturing fields.

The Organization's Head Office, with administrative and executive staff, is in Melbourne, and associated with it are the Organization's Central Library, Agricultural Research Liaison Section, Industrial Research Liaison Section and Editorial and Publications Section. The funds for the Organization are provided from two main sources, namely, from Commonwealth revenue by Parliamentary appropriation, and from industry directly or indirectly by way of contributions and special grants. The fact that contributions and grants account for over one-fifth of the total annual expenditure indicates that the C.S.I.R.O. has succeeded in a very large measure in gaining the confidence of the public.

The activities of the C.S.I.R.O. are now so comprehensive in their scope and so widely distributed that it is not an easy matter to present an adequate picture of them in a concise form. For details of the investigations in progress, reference should be made to the Annual Report of the Organization.

§ 8. Mount Stromlo Observatory.

Mount Stromlo Observatory—since 1957 incorporated into the Australian National University—is the largest observatory in the southern hemisphere. It is in effect the Department of Astronomy of the Australian National University, and its staff members assist in the training of the future astronomers of Australia. In its instrumental resources, it is second only to some of the great observatories of America. Since it is located south of the Equator, it is placed especially advantageously for the conduct of research into the structure of the Milky Way System and of the Star Clouds of Magellan. The telescopes and auxiliary equipment at the Observatory provide access to parts of the sky that are forever hidden from the view of northern hemisphere astronomers. Mount Stromlo astronomers have therefore a special responsibility to do research on stars and other celestial objects at far southern declinations.

Mount Stromlo itself is a ridge of hills, approximately one mile long, situated at $35^{\circ} 19' 16''$ South Latitude and $149^{\circ} 0' 20''$ East Longitude, seven miles west of the city of Canberra. Its highest point is about 2,560 feet above sea level, and telescopes can be situated so as to be well screened from the lights of the city.

The first permanent installation on the site was established in 1911, but, because of the war and other circumstances, the development of the Observatory was delayed. It was not until 1925 that regular astronomical work could be undertaken. Since then, the Observatory has developed steadily, and now, under its third Director, Professor Bart J. Bok, the scientific staff consists of twelve astronomers. This does not include six scholars and a number of overseas astronomers visiting Mount Stromlo for periods of a year or so. With technical, clerical and maintenance personnel, the total staff amounts to about 60 persons.

Mount Stromlo Observatory possesses eight mounted telescopes with apertures ranging from five inches to 74 inches. The 74-inch reflector is the largest telescope in the southern hemisphere. There are also special telescopes for the Time Service and two overseas groups have major telescopes on the Observatory grounds. These telescopes are a 26-inch refractor from the Universities of Yale and Columbia, U.S.A., and a 26-inch Schmidt Telescope from the University of Uppsala, Sweden.

The principal areas of research at Mount Stromlo are:—

- (i) Studies of the structure and dynamics of the Milky Way system.
- (ii) Investigation of the Large and Small Magellanic Clouds.
- (iii) Studies of the physical properties of the interstellar medium of gas and dust, and its relation to the spiral structure of our galaxy.
- (iv) Studies of the physics of the stars of the southern hemisphere by spectrographic means and by photoelectric techniques.
- (v) Maintenance of the National Time Service leading to studies of the variable rotation of the earth and polar motion.

Published accounts of the researches have a world-wide distribution.

The Observatory is at present engaged in a major expansion of equipment and staff. A search is being made for an area, more cloud-free than Mount Stromlo, where a permanent Field Station may be established. A preliminary installation of a 26-inch reflector has been made at Mount Bingar near Griffith, New South Wales. Other sites are being examined for the future development of astronomy in Australia.

At certain times, Mount Stromlo is open for inspection by members of the public when arrangements can be made so that the scientific work of the Observatory is not interrupted. A more detailed description of the Observatory's work is given in Official Year Book No. 46, pages 1142-1144.

§ 9. Standards Association of Australia.

The Standards Association of Australia is the national standardizing organization of Australia, and issues Australian standard specifications for materials and codes of practice.

The Association was established in July, 1929, by the amalgamation of the Australian Commonwealth Engineering Standards Association and the Australian Commonwealth Association of Simplified Practice. It is an independent body in close touch with modern industrial requirements and has the full recognition and support of the Commonwealth and State Governments and industry. It was incorporated by Royal Charter in 1950.

The sole executive authority of the Association is vested in the Council, on which industry is fully represented, together with official representatives of the Commonwealth and State Governments and their technical departments, and of scientific, professional and commercial organizations. Voluntary assistance is rendered in the drafting of specifications and codes by several thousand individuals who are experts in their particular fields, and are organized into some hundreds of committees. These committees are grouped under broad industry headings including civil engineering and building construction, mechanical engineering, electrical engineering, chemicals, timber, transportation, aircraft materials, ferrous and non-ferrous metallurgy, plastics, textiles, mining, ceramics, medical and dental materials, household and domestic economy, agricultural and dairying, safety, packaging, and water supply and sewerage.

These committees are composed of nominated representatives of manufacturing, distributing and purchasing organizations, and of scientific and other expert authorities in the particular field of the project being dealt with. The operations of these committees are co-ordinated and supervised by committees broadly representative of the whole industry within which the respective projects are included.

The specifications of the Association provide a suitable standard of performance, quality, and dimension, and an equitable basis for tendering. They help to eliminate redundant qualities and sizes. They enable purchasers to obtain their requirements with greater assurance of satisfaction, with more rapid delivery and without the necessity of drafting individual specifications.

The underlying principles covering the preparation of the specifications and codes are that they shall be in accordance with the needs of industry; that the common interests of producer and consumer be maintained; that periodical revision should keep the work abreast with progress; and that standardization be arrived at by general consent without coercion.

Organizations, companies, firms and individuals interested in the work of the Association are eligible for subscription membership. Members are entitled to free copies of the publications of the Association and to the use of the library and its Special Information Service. Bibliographical research is undertaken for committees, members of the Association, and industry in general. Many hundreds of inquiries are answered each year.

The Association has international affiliations, and the standards of all British and foreign countries are filed in the library and are accessible to members. It is a member, representing Australia, of the International Organization for Standardization (ISO). The Association also administers the Australian National Committee of the International Electrotechnical Commission.

The Association is also the representative of the British Standards Institution, and all British standards may be purchased from headquarters and branch offices in the various States.

The headquarters of the Association are at Science House, Gloucester Street, Sydney, and branches of the Association are situated at Temple Court, 422 Collins Street, Melbourne; School of Arts Building, 166 Ann Street, Brisbane; 11 Bagot Street, North Adelaide; 101 Hooper Street, West Perth; c/o Engineering School, University of Tasmania, Sandy Bay; and Howard Smith Chambers, Watt Street, Newcastle.

§ 10. Industrial Design Council of Australia.

The Industrial Design Council of Australia was established in June, 1958, for the purpose of encouraging better design in Australian-made goods and fostering an appreciation of good design throughout the community. The decision to set up the Council arose from a realization on the part of representatives of industry and government, designers and educationists, that there was a pressing need in Australia for an independent and authoritative body to promote better design in the interests of trade development.

The Council has a membership fully representative of industry, commerce and government, together with designers and educationists. Initial finance has been raised by donations from industry and commerce; and a grant of £10,000 has been made by the Commonwealth Government for establishment purposes.

As part of its programme of assisting industry, the Council has conducted several lecture series in Sydney and Melbourne, dealing with various aspects of product design. Design counselling is available to manufacturing companies on request; and manufacturers seeking the services of designers are put in touch with qualified people.

Other projects include the setting-up of a Design Index, providing a photographic catalogue of well-designed Australian goods, for reference by manufacturers, retailers, architects, designers and the public; a Register of Designers, providing a comprehensive reference to Australian designers to assist those seeking their services; Displays and exhibitions of well-designed goods, both local and overseas; Design Training—the council is aware of the urgent need to raise the standard of training in industrial design and will co-operate with education authorities to this end; Information Services—it is intended to establish information offices in both Sydney and Melbourne, and later in other States, to provide information on all matters concerned with design.

The offices of the Council are in ICI House, 1 Nicholson Street, Melbourne, C.2.

§ 11. Film Censorship Board.

1. Legislation.—The Commonwealth Government's powers over censorship of films extend only to imported films and imported advertising matter and stem from the Customs Act. Under that Act, the Customs (Cinematograph Films) Regulations provide for the appointment of a Film Censorship Board whose function is to ensure that films and related advertising material coming within certain defined categories are not admitted into Australia. Under those regulations, the Film Censorship Board may pass films in their original form, reject them, or pass them after eliminations have been made. The Commonwealth Regulations give the Board no power to classify films.

Legislation passed by the State Governments of Victoria, Queensland, Western Australia and Tasmania names the Commonwealth Film Censorship Board as the censorship authority and vests in it the power to classify films as suitable for general exhibition or otherwise.

The State Acts give the Commonwealth Board the authority to censor films made in Australia for commercial exhibition and advertising matter made in Australia.

The Censorship organization comprises a Censorship Board of seven persons and an Appeal Censor, the headquarters being in Sydney. Importers have a right of appeal to the Minister against decisions of the Board and the Appeal Censor.

2. *Import of Films.*—(i) *35 mm. Films for Exhibition in Motion Picture Theatres.* In 1960, 969 films comprising approximately four million feet were censored. This represents approximately 760 hours' screening time. 445 of these films originated in the United States of America, 274 in the United Kingdom and 250 in other countries. Of the last-mentioned, U.S.S.R. 67, France 31, Italy 26, Germany 23, Greece 15, and Poland and Yugoslavia nine each, were the principal suppliers.

Included above were 401 full-length feature films which constitute the main theatrical attractions. This was a decrease of 56 compared with the imports for 1959. Feature films came from:—the United States of America 204, the United Kingdom 75, France and Russia 21 each, Greece 16, Germany 14, Italy 11, Czechoslovakia six, Sweden five, and other countries 28.

Seven feature films were rejected and cuts were made from 179.

Feature films classified as suitable for general exhibition numbered 181 and 210 were not suitable for children. Of the latter, 33 carry the special condition that all advertising shall indicate that they are suitable only for adults. These classifications are advisory only and are designed to enable picture-goers and particularly parents to obtain a general idea of the nature of any particular film.

In addition to these imported films, 157 35mm. films of 118,279 feet produced in Australia were cleared. These were mainly newsreels and documentaries and concerned the Board only when intended for commercial exhibition or export. This figure does not represent the total production in Australia.

(ii) *16mm. Films.* The use of 16mm. films on television programmes has given this type of film a new and significant importance from the censorship-standpoint.

In the past, 16mm. films were largely confined to those commercially produced for use in certain country picture theatres, in theatres used by business undertakings for advertising and instructional purposes, in churches, schools and universities, and on home movies. These are of all types—dramatic, scenic, topical, medical, advertising, educational, religious, etc.

Excluding those imported for television use, 5,259 16mm. films of approximately 34 million feet were examined. There were no rejections but eliminations were made from 34. 16mm. films imported for television are dealt with below (see (iv)).

(iii) *8mm. and 9.5mm. Films.* The Board's responsibilities in regard to these have been removed to a large extent, following the decision to discontinue the censorship of films brought in by travellers depicting incidents during their travels. Periodical checks are made and only commercially produced films are examined. Of these, approximately 18,000 feet were censored. No films were rejected.

(iv) *Television Films.* 9,921 films, predominantly 16mm., of approximately 11 million feet, for use on television, were censored.

The number of films is not a true indication of volume because many of these were of very short duration. The footage, however, transposed to a time factor, shows that the screening time of films censored for television amounted to approximately 5,074 hours.

On a footage basis, the United States of America supplied approximately 85 per cent. of the total imports and the United Kingdom 13 per cent.

Thirty-two television films were rejected outright and an additional nine were classified as unsuitable for televising. Eliminations were made from 1,563. There were no appeals.

(v) *Foreign Language Films.* Countries other than the United Kingdom and the United States of America supplied 250 of the 35mm. films imported for theatrical exhibition. Of these, 122 were feature films.

Generally, the dialogue is in a foreign language with explanatory English captions. A few have an English commentary, and in isolated cases the dialogue is turned into English by the process known as "dubbing". The main countries of origin are shown above (see (i)).

Of 5,259 16mm. commercial films censored, 846 originated from non-English-speaking countries. The chief supplying countries were Germany 128, France 129, U.S.S.R. 104, Switzerland 57, Japan 51, Italy 47, China 46, Czechoslovakia 42, India and Holland 36 each and Malaya 30.

An interpreter attends all censor-screenings of films in a foreign language.

3. *Export of Films.*—The quantity of films exported for the year was approximately 2,000,000 feet. This footage includes, in many cases, several prints of the one film.

§ 12. Australian National Film Board and the Film Division.

1. **The Australian National Film Board.**—The Australian National Film Board was inaugurated in April, 1945, on the recommendations of a Commonwealth Government inter-departmental committee which considered the suggestions of a conference of interested individuals and Commonwealth and State officials, including Directors of Education, called in November, 1944, by the Ministers for Information and Post-war Reconstruction. It was attached, for administrative purposes, to the Department of Information.

With the abolition of the Department of Information in March, 1950, administration of the Board was transferred to the News and Information Bureau, Department of the Interior.

In November, 1950, the Board was reconstituted as an advisory body to the Minister for the Interior on matters concerned with the production, acquisition and distribution of films required by Commonwealth departments for the following purposes:—

- (a) for use within Australia on important matters of national interest and welfare, such as school and adult education, rehabilitation, social development, international understanding, trade and tourist expansion, and immigration;
- (b) for dissemination abroad to expand trade and commerce with other countries, to encourage tourist traffic with Australia, to improve Australia's relations with other countries and, where necessary, to explain Australia's national policies and encourage immigration.

The constitution provides for a membership of ten, with the Secretary of the Department of the Interior, Chairman, the Director of the News and Information Bureau, Deputy Chairman, and the remainder representative of Commonwealth departments, State Government instrumentalities, and organizations interested in the production, distribution or utilization of films for national publicity.

2. **The Film Division of the News and Information Bureau.**—The first Australian Government organization for the production of motion pictures for national publicity purposes was the Cinema and Photographic Branch of the Department of Commerce, set up in Melbourne in 1920. Early in the 1939–45 War, the newly-established Department of Information was made responsible for the operation of the Cinema Branch and for an Official War Photography Unit. Production and distribution of all films required by Commonwealth Departments are now undertaken by the staff of the Film Division, News and Information Bureau, Department of the Interior, or by commercial enterprises under the supervision of officers of the Film Division. Theatrical and television distribution in Australia, and both theatrical and non-theatrical distribution overseas, of all Film Division productions are organized by the News and Information Bureau's home office or its overseas representatives. Non-theatrical distribution in Australia is organized through the National Library, Canberra, in co-operation with State film distribution agencies.

Since 1946, the Film Division has produced 387 films for general exhibition, as well as training and special purpose films. Prints are dispatched to 49 overseas centres, where distribution is arranged by News and Information Bureau officers or other Australian representatives. In Britain, there is regular distribution through more than a thousand theatres, and a large non-theatrical and educational series of circuits. By arrangement with the British Broadcasting Corporation, items of topical interest photographed by the Film Division are flown to London for television. In the United States of America, there is wide non-theatrical distribution and considerable use of the films by television networks. An exchange arrangement with the National Film Board of Canada secures extensive distribution in Canada. Selected films have been recorded in French, Dutch, German, Italian, Japanese, Hindustani, Tamil and other Indian dialects.

In addition to films made on the initiative of the News and Information Bureau, the Film Division produces films under the sponsorship of, or with the co-operation of, Commonwealth Departments and many other bodies such as the Commonwealth Bank of Australia, the Road Safety Council, Overseas Telecommunications Commission, Snowy Mountains Hydro-electric Authority, Australian Wine Board, the Australian National University and the Australian Broadcasting Commission.

The co-operation of the Australian motion picture industry with the Commonwealth, spontaneously offered at the outset of the 1939–45 War, continues. Special films for urgent national appeals are planned, produced and distributed, with the assistance of the National Films Council of the motion picture industry and its Film Production Advisory Committee.

§ 13. The National Safety Council of Australia.

The National Safety Council of Australia was founded in Melbourne in 1927 with the object of developing, mainly by education, safety in all spheres—on the road, in industry, in the home and on the farm. It is a non-profit making organization supported by Government grants, public subscriptions and payments for service. Its work is carried out by a small staff controlled by committees and governed by an executive.

In 1959, the Council's work in industrial safety was consolidated and expanded by the formation of an Advisory Committee composed of leading industrialists with Australia-wide associations, and the Council is now being reorganized on a national basis. A strong Advisory Committee has been established in New South Wales, and action is being taken to register the Council's national headquarters in Canberra. In addition to the Industrial Safety Service of posters, slips for pay envelopes and the bi-monthly journal "Safety News", available to industry by subscription, the Council's Industrial Safety Division also provides advice on setting up safety programmes, information on safety problems, safety surveys of plant and works, safety instruction for foremen, technical library facilities, and safety service to small factories.

In Victoria, the Road Safety Division undertakes campaigns, lectures and film screenings to schools and organizations. Posters and literature are distributed to schools in connexion with road safety lessons, and special films are available on loan for child and adult road safety instruction. With the co-operation of other interested organizations, the Road Safety Division undertakes School Driver Training courses in various Melbourne schools. This scheme is proving most successful and it is hoped to expand it greatly. A "Safe Driving" campaign for individual motor drivers and a "Freedom from Accidents" campaign for employee drivers are conducted, and those completing a year free from any accident for which they were responsible are given a certificate or award in recognition.

§ 14. Australian Road Safety Council.

1. Origin, Objectives and Organization.—The Australian Road Safety Council was formed in 1947 by the Australian Transport Advisory Council, which comprises Commonwealth and State transport ministers and Commonwealth ministers with associated interests, to conduct a nation-wide programme of public education. It was re-constituted in February, 1961, by the Australian Transport Advisory Council, in order to provide a smaller, more effective, organization.

The objectives of the reconstituted Council are—

- (a) To conduct a continuous programme of public education, aimed at improving the knowledge, skills, attitudes and practices of all classes of road users;
- (b) To encourage a better understanding and observance of State and Commonwealth traffic laws by road users;
- (c) To stimulate greater public interest, support and active participation in road accident prevention;
- (d) To co-ordinate, in a balanced programme, the Commonwealth and State public education campaigns, and to integrate with these campaigns the support accorded by non-governmental bodies and the general public;
- (e) To collect, collate, publish and distribute educational and informative data regarding road accidents; and
- (f) To advise on specific road safety matters referred to it by the Australian Transport Advisory Council.

The Australian Road Safety Council comprises 16 members, representing the Commonwealth and State Governments and the major categories of organized road users. It meets approximately three times each year and has established a number of temporary sub-committees to investigate and report upon particular aspects of its activities. Its first meeting was held in Hobart on April 10th and 11th, 1961.

The Department of Shipping and Transport provides the central executive for the Council. Each section represented on the Australian Road Safety Council—Commonwealth, State and community/commercial—exercises full control over its own activities. One of the Council's principal functions is to co-ordinate the Commonwealth and State public education campaigns and to integrate with these campaigns the support accorded by commerce, industry, and community service organizations.

A sum of £150,000 is provided annually by the Commonwealth Department of Shipping and Transport for the promotion of road safety practices; £50,000 is distributed to the State Governments for public education in road safety, and the remaining £100,000 is used for the national public education campaign. The £50,000 grant to the States is allocated in the following proportions:—New South Wales, £12,500; Victoria, £10,000; Queensland, £9,250; South Australia, £6,250; Western Australia, £8,250; Tasmania, £3,750; total £50,000.

2. *Mode of Operation.*—The media used by the Australian Road Safety Council in its national campaigns include metropolitan daily press and metropolitan radio and television, platform and pulpit, plus a wide variety of posters, pamphlets, booklets, publications and films. Close liaison is maintained with State and Commonwealth educationists in the preparation and distribution of road safety instructional material for schools.

The Council, through its Central Executive in the Department of Shipping and Transport, works in close collaboration with two companion Committees, established by the Australian Transport Advisory Council. These are the Australian Road Traffic Code Committee, which is charged with the responsibility of drafting recommendations for uniform road traffic laws throughout the Commonwealth in keeping with modern traffic requirements, and the drafting of a complete National Road Traffic Code suitable for adoption in all States and Territories; and the Australian Motor Vehicle Standards Committee, which devises national standards for the construction, equipment, and operational efficiency of all road vehicles.

Because of the great increases in population and vehicle numbers, the exposure to risk of road users is considerably greater today than ever before. This is the basic problem confronting the Australian Road Safety Council, and in its efforts to deal with it, the Council has recognized the consideration that notwithstanding advances in road and vehicle design and traffic laws, road safety still remains essentially a problem of human behaviour.

The primary aim of road accident prevention, as envisaged by the Council, is thus to create a state of mind under which all classes of road users realize the imminence and consequence of road accidents, and are willing to accept the restraints necessary to prevent them. It is the Council's belief that, for the most part, this can best and often only be done effectively through education in the broad and practical sense, by improving knowledge, skill, attitudes and habits of all classes of road users, and by creating a public conscience about road accidents.

§ 15. Australian Atomic Energy Commission.

1. *Establishment and Functions of the Commission.*—In November, 1952, a Commission of three members was appointed to control the Commonwealth's activities in relation to uranium and atomic energy, and in April, 1953, upon the enactment of the Atomic Energy Act 1953, the Commission was established as a statutory authority, with powers and functions as defined in the Act. Under amending legislation, the number of Commissioners was increased to five in April, 1958. The Commission is a corporate and autonomous body, controlling its own service. It functions under the direction of the Minister for National Development.

The functions of the Commission fall under two main headings. Firstly, it is responsible for undertaking and encouraging the search for and mining of uranium, and is empowered to co-operate with the appropriate authorities of the States in connexion with these and related matters. Secondly, it is authorized to develop the practical uses of atomic energy by constructing and operating plant for this purpose, carrying out research and generally fostering the advancement of atomic energy technology. These powers and functions are set out in detail in Part II. of the 1953 Act. In general, and subject to the Commonwealth's defence powers and particular provisions of the Act, they are exercisable only in or in relation to the Territories of the Commonwealth.

2. *Uranium Prospecting and Mining.*—Uranium prospecting and mining in the Territories of the Commonwealth are freely open to private enterprise, subject to the Atomic Energy Act 1953 and the Ordinances of the Territories. In the past, the Bureau of Mineral Resources, Geology and Geophysics, of the Department of National Development, has carried out on behalf of the Commission widespread aerial surveys aimed at ascertaining the uranium resources of the Territories and delineating areas in which further search for uranium by private prospectors was considered worthwhile. Although rewards are no longer paid for discoveries of uranium, tax concessions are still allowed in respect of income earned from uranium mining. The Bureau of Mineral Resources provides prospectors and mining companies in the Territories with a wide range of technical and advisory services.

The development of the uranium resources of the States is governed by the legislation and policies of the States. Commonwealth assistance, in the form of aerial, geological, and geophysical services, is available to the States, and the State Mines Departments carry out inspections of uranium prospects and test samples submitted by prospectors.

Uranium oxide is being produced in Australia from ore deposits at Rum Jungle and South Alligator River, in the Northern Territory, Radium Hill, in South Australia, and Mary Kathleen, in Queensland. The Rum Jungle deposits have been worked under arrangements between the Commonwealth and the Combined Development Agency, a joint procurement organization of the United States and United Kingdom Governments. The mining and treatment operations are conducted for the Commonwealth by an Australian mining company. The treatment plant began operations on the field in September, 1954, and the total production since that date has been sold to the Agency for defence purposes. No mining was carried out between November, 1958, and April, 1961, but mining was recommenced with the discovery of a new ore body. Treatment operations are continuing, with ore stockpiled from the previous mining. These stockpiles are more than sufficient to complete the contract with the Combined Development Agency which expires in January, 1963. Exploration is continuing to determine whether or not further ore bodies exist in the area.

The Radium Hill deposits are being worked by the South Australian Government, which has an ore concentration plant on the field and a plant for the treatment of the concentrates at Port Pirie. As at Rum Jungle, the operations at Radium Hill and Port Pirie are carried out under arrangements with the Combined Development Agency, and the output from the operations is sold to the Agency.

The Mary Kathleen ore body in the Mt. Isa-Cloncurry district in Queensland has proved to contain Australia's largest reserve of uranium ore. A mine and treatment plant which cost over £10 million has been established in the area by a large mining company. Production from the plant is being sold to the United Kingdom Atomic Energy Authority for the British nuclear power programme under arrangements approved by the Commonwealth Government. Two other companies in the South Alligator region in the Northern Territory also have contracts with the Authority for the British nuclear power programme. These contracts are for smaller tonnages. Both companies began production in 1959.

3. Research.—The Commission's Lucas Heights Establishment is the major Australian centre for atomic energy research and information. It has a programme of research in the development of nuclear power, the utilization of radio-isotopes, and in other associated fields, directed towards the long-term development of the resources of the country.

The main feature of this programme is the development of a type of nuclear power reactor suited to Australian needs. A high temperature gas cooled reactor has been selected for study. By comparison with the nuclear power stations in existence or being planned at the present day, this is an advanced system. It is expected to be capable of competing on a cost basis with new coal-burning stations in many parts of Australia.

Developing of this system is essentially a long-range project, and in the initial stages, an extremely precise and careful study must be made of the basic physics and engineering of the system, and of the materials involved in its construction. It is necessary to develop nuclear materials which can be fabricated to the required shape and form and can withstand the severe chemical and nuclear conditions within the proposed reactor. The Research Establishment is now doing considerable research into the properties of beryllium and its oxide, which have valuable nuclear qualities. It is already making significant contributions to the world's knowledge of the chemistry, physics and metallurgy of beryllium.

As the research programme goes forward, the way is being prepared for the introduction of nuclear power in Australia, not necessarily through the HTGC reactor alone, but also for other reactor systems and for other applications of atomic energy. These activities are building up a body of knowledge and local skill which will be needed when it is decided that nuclear power stations should be built in this country. On present indications, the Commission expects that the first such station may be in operation by about 1970.

The Commission is also seeking to extend the use of radio-isotopes in Australia in scientific research and development, in the treatment of disease, in raising production and lowering costs in agriculture and in manufacturing industry. There is a vast field of fruitful applications, and new ones are being continually devised. In Australia, these new processes are being used only in a small fraction of the possible fields. The use of isotopes is fostered by providing an advisory service which is a ready source of information on established uses,

and by investigation of other projected application. Isotopes, including short-lived isotopes which cannot be economically imported, are being produced in the high flux research reactor HIFAR.

Research and development work on technical and scientific applications of radiation is also being carried out. The possibilities of radiation for such purposes as industrial sterilization, food preservation, and the control of insect pests are being investigated. Scientists at Lucas Heights are also studying the biological effects and questions of health and safety involved in the use of radio-active materials.

Lucas Heights is a centre of specialised equipment and information. In addition to the high flux research reactor HIFAR, used for testing materials and producing radio isotopes, there is much other equipment unique in Australia. All these facilities are available to Universities and other institutions under suitable conditions. In these endeavours, the Atomic Energy Commission is working in close co-operation with the United Kingdom Atomic Energy Authority, under arrangements which give Australia access to results of United Kingdom research on peaceful atomic energy uses. Results of research in Australia are in like manner available to the United Kingdom. Work in Australia, though constituting a self-contained programme, is co-ordinated with the United Kingdom programme, to avoid overlapping of research objectives and duplication of investigations. Australia also has bilateral arrangements with the United States and Canada, and is taking part in the promotion of the peaceful uses of atomic energy through the International Atomic Energy Agency.

§ 16. The United Nations.

1. General.—The Moscow Declaration of 1943 concerning a new international organization for the maintenance of international peace and security marked the end of the League of Nations. The dissolution of the League and the transfer of certain of its functions to the new body, the United Nations, took place over subsequent years. Information concerning the League of Nations was given in No. 35 and earlier issues of the Official Year Book.

The Charter of the United Nations was drawn up by the delegates of 50 nations at the United Nations Conference on International Organization at San Francisco from 25th April to 26th June, 1945. Australia's ratification was deposited on 1st November, 1945.

The full record of the Conference is contained in the *Report by the Australian Delegates on the United Nations Conference on International Organization* held at San Francisco from 25th April to 26th June, 1945.

At San Francisco, an Executive Committee and a Preparatory Commission were established, and when these bodies had completed their work of preparation for the first meeting of the United Nations, the General Assembly met in London on 10th January, 1946.

There were 51 original members. By the end of the Fifteenth Session (1960), 49 new members had been admitted and Egypt and Syria had been replaced by the United Arab Republic. At the Sixteenth Session, Sierra Leone was admitted as the one hundredth member. The General Assembly also authorized Syria's resumption of separate representation in the Organization and took note, without objection, of a statement by the Government of the Syrian Arab Republic that the Syrian Republic was resuming its status as an independent State within the same territorial limits as it had before 1958. There are now* 103 member States, namely:—Afghanistan, Albania, Argentina, Australia, Austria, Belgium, Bolivia, Brazil, Bulgaria, Burma, Byelorussia, Cambodia, Cameroun, Canada, Central African Republic, Ceylon, Chad, Chile, China, Colombia, Congo (Brazzaville), Congo (Leopoldville), Costa Rica, Cuba, Cyprus, Czechoslovakia, Dahomey, Denmark, the Dominican Republic, Ecuador, El Salvador, Ethiopia, Finland, France, Gabon, Ghana, Greece, Guatemala, Guinea, Haiti, Honduras, Hungary, Iceland, India, Indonesia, Iran, Iraq, the Republic of Ireland, Israel, Italy, Ivory Coast, Japan, Jordan, Laos, Lebanon, Liberia, Libya, Luxembourg, Malagasy, Malaya, Mali, Mauritania, Mexico, Mongolia, Morocco, Nepal, the Netherlands, New Zealand, Nicaragua, Niger, Nigeria, Norway, Pakistan, Panama, Paraguay, Peru, the Philippines, Poland, Portugal, Romania, Saudi Arabia, Senegal, Sierra Leone, Somalia, South Africa, Spain, Sudan, Sweden, Syrian Arab Republic, Thailand, Togo, Tunisia, Turkey, the Ukraine, the Union of Soviet Socialist Republics, the United Arab Republic, the United Kingdom, the United States of America, Upper Volta, Uruguay, Venezuela, Yemen, and Yugoslavia.

* November, 1961.

The principal organs of the United Nations are the General Assembly, the Security Council, the Economic and Social Council, the Trusteeship Council, the International Court of Justice, and the Secretariat.

2. **General Assembly.**—This is the forum of the United Nations. In it, each member State is represented and has one vote. It meets in regular annual sessions from the middle of September and has provision for special sessions. With the exception of disputes which are before the Security Council and matters essentially within the domestic jurisdiction of any State, it has power to discuss any matter within the scope of the Charter and to make recommendations upon it. The Assembly elects the non-permanent members of the other major organs and considers annual reports from them. Upon the recommendation of the Security Council, it may expel a member which has persistently violated the principles of the Charter.

3. **The Security Council.**—This has the primary responsibility for the maintenance of international peace and security. It is composed of five permanent members, namely China, France, the United Kingdom, the Union of Soviet Socialist Republics and the United States of America, and six non-permanent members with two-year periods of office, of whom three retire at the end of each year. At the initial election, three countries, including Australia, were elected for a term of two years and three others for a term of one year only. The following are the non-permanent members of the Security Council for the year beginning on 1st January, 1962; Chile, the Republic of Ireland, and the United Arab Republic (whose terms end on 31st December, 1962), Ghana, Venezuela and one to be elected (whose terms expire on 31st December, 1963). Following an agreement reached during the Fifteenth Session, Liberia retired from the Security Council after one year and the Republic of Ireland was elected for the remainder of the two year term. On procedural matters, decisions are taken by an affirmative vote of any seven members, but on all other matters, decisions can be made only on the affirmative vote of seven members, including the concurring votes of all the permanent members. However, the powers which are parties to a dispute for peaceful settlement do not vote.

The Security Council is assisted by a Military Staff Committee consisting of the Chiefs of Staff of the permanent members of the Council or their representatives.

4. **The Economic and Social Council.**—This body consists of eighteen members, each elected for a period of three years. Its main functions are to make, or initiate, studies and reports, and to make recommendations to the General Assembly or to members of the United Nations upon international, economic, social, cultural, educational, health and related matters. It may make recommendations for the purpose of promoting respect for, and observance of, human rights and fundamental freedoms for all.

The members of the Economic and Social Council for the year beginning on 1st January, 1962, are: Brazil, Denmark, Japan, Poland, the United Kingdom and the Union of Soviet Socialist Republics (retiring at the end of 1962); Ethiopia, El Salvador, France, Italy, Jordan and Uruguay (retiring at the end of 1963); and Australia, Colombia, Senegal, the United States of America, and two still to be elected (retiring at the end of 1964).

5. **The Trusteeship Council.**—The Charter declares the political, social, cultural and economic advancement of the Trust Territories to be a sacred trust. Under the Charter the Trusteeship Council should be composed of those members of the United Nations who are administering trust territories and an equal number of members who are not administering trust territories (including any permanent members of the Security Council who are not administering trust territories). Territories which may be placed under trusteeship in accord with individual trusteeship agreements are those previously held under mandate, those detached from enemy states as a result of the 1939–45 War, and those dependent territories placed under the system by the States responsible for their administration. Australia is automatically a member of the Trusteeship Council, as the power administering the Trust Territories of New Guinea and Nauru, the latter in joint administration with New Zealand and the United Kingdom. The present* members of the Trusteeship Council are: Australia, Belgium, New Zealand, the United Kingdom and the United States of America (administering States), and Bolivia, Burma, China, France, India, Paraguay, the United Arab Republic and the Union of Soviet Socialist Republics. China, France and the Union of Soviet Socialist Republics are members of the Trusteeship Council by virtue of their permanent membership of the Security Council.

* November, 1961.

The Council has among its duties the consideration of annual reports submitted by the trustee States, the carrying out of periodic inspections by agreement with them, and the formulation of questionnaires on the welfare and advancement of the dependent peoples.

6. **The International Court of Justice.**—This consists of fifteen judges, no two of whom may be nationals of the same State. Its jurisdiction comprises all cases which the parties refer to it, and all matters especially provided for in the Charter or in treaties and conventions in force. Provision exists in the Statute of the Court whereby States parties to the Statute, may accept the jurisdiction of the Court as compulsory, either conditionally or unconditionally in certain international disputes.

The present* members of the Court are: Judges Alfaro (Panama), Sir Gerald Fitzmaurice (United Kingdom), Basdevant (France), Cordova (Mexico), and Quintana (Argentina)—all retiring in 1964; Judges Badawi (United Arab Republic), Wellington Koo (China), Winiarski (Poland), Sir Percy Spender, (Australia) and Spiropoulos (Greece)—all retiring in 1967; and Judges Jessop (United States of America), Keretsky (U.S.S.R.), Tanaka (Japan), Morelli (Italy), Bustamante y Rivero (Peru), all retiring in 1970. Sir Gerald Fitzmaurice was elected at the Fifteenth Session (1960) to fill the casual vacancy caused by the death of Sir Hersch Lauterpacht.

7. **The Secretariat.**—The Secretary-General is the head of the Secretariat of the organization. He is appointed by the General Assembly upon the recommendation of the Security Council, and he appoints his staff in accordance with the rules approved by the General Assembly. Mr. Trygve Lie (Norway) was appointed first Secretary-General, and at the Sixth Session of the General Assembly in 1950 his appointment was extended for a further three years as from 1st February, 1951. In November, 1952, Mr. Lie announced his intention of retiring, and in April, 1953, Mr. Dag Hammarskjöld (Sweden) was appointed in his place. He was re-appointed for a further five years in September, 1957, but was killed on 18th September, 1961, in an aircraft crash. U Thant (Burma) was appointed on 3rd November, 1961, to act for the remainder of the term (until 10th April, 1963).

8. **Specialized Agencies.**—In addition to these organs of the United Nations, there are specialized agencies which co-operate closely with the United Nations in many fields on economic and social questions.

Those now* in operation are: International Labour Organization; Food and Agriculture Organization; United Nations Educational, Scientific and Cultural Organization; International Civil Aviation Organization; International Bank for Reconstruction and Development; International Monetary Fund; International Finance Corporation; International Development Association; Universal Postal Union; World Health Organization; International Telecommunications Union; World Meteorological Organization; Intergovernmental Maritime Consultative Organization.

To enable co-ordination of the work of the specialized agencies, arrangements have been made for them to submit reports on their activities and budgets to the United Nations where they are discussed by the Economic and Social Council and the General Assembly.

§ 17. Australian Representation Abroad :: Oversea Representation in Australia.

1. **General.**—The following statements show particulars of the various Australian diplomatic and other representatives overseas and of overseas representatives in Australia in November, 1961. Full details of Commonwealth and foreign representation in Australia—diplomatic and consular—and of permanent Australian missions overseas may be obtained from publications issued by the Department of External Affairs, Canberra. A statement is issued each quarter by the Department of Trade, showing the latest particulars of the Australian Trade Commissioner Service overseas.

2. Australian Representation Overseas.—

AUSTRALIAN DIPLOMATIC AND OTHER REPRESENTATIVES OVERSEAS.

Her Majesty's Australian Ambassador Extraordinary and Plenipotentiary to—

Belgium (Brussels)—Sir Edwin McCarthy, C.B.E.

Brazil (Rio de Janeiro)—S. Jamieson.

Burma (Rangoon)—(Vacant); F. T. Homer (Charge d'Affaires *ad interim*).

Cambodia (Phnom Penh)—F. H. Stuart.

* November, 1961.

France (Paris)—Dr. E. R. Walker, C.B.E.
Germany, Federal Republic of (Bonn)—Sir Alan Watt, C.B.E.
Indonesia (Djakarta)—P. Shaw, C.B.E.
Ireland (Dublin)—(Vacant); H. D. White (Charge d'Affaires *ad interim*).
Israel (Tel Aviv)—J. M. McMillan.
Italy (Rome)—(Vacant); K. H. Rogers (Charge d'Affaires *ad interim*).
Japan (Tokyo)—L. R. McIntyre, C.B.E.
Nepal—W. R. Crocker, C.B.E. (resident in New Delhi).
The Netherlands (The Hague)—Sir Edwin McCarthy, C.B.E.
The Philippines (Manilla)—A. T. Stirling, C.B.E.
South Africa (Pretoria)—O. L. Davis.
Thailand (Bangkok)—M. R. Booker.
Union of Soviet Socialist Republics (Moscow)—J. K. Walter, C.B.E.
United Arab Republic (Cairo)—(Vacant); T. V. Holland (Charge d'Affaires *ad interim*).
United States of America (Washington, D.C.)—The Hon. Sir Howard Beale, K.B.E., Q.C.
Vietnam (Saigon)—B. C. Hill (Ambassador designate).

High Commissioners for Australia in—

Canada (Ottawa)—D. O. Hay, D.S.O., M.B.E.
Ceylon (Colombo)—(Vacant); M. G. M. Bouchier (Acting).
Ghana (Accra)—B. C. Ballard.
India (New Delhi)—W. R. Crocker, C.B.E.
Malaya, Federation of (Kuala Lumpur)—T. K. Critchley.
New Zealand (Wellington)—Vice-Admiral Sir John Collins, K.B.E., C.B.
Nigeria (Lagos)—A. P. Renouf.
Pakistan (Karachi)—J. C. G. Kevin.
United Kingdom of Great Britain and Northern Ireland (London)—The Rt. Hon. Sir Eric Harrison, K.C.V.O.

Her Majesty's Australian Envoy Extraordinary and Minister Plenipotentiary to—

Laos (Vientiane)—A. M. Morris.
Sweden (Stockholm)—(Vacant); W. R. Carney (Charge d'Affaires).

Australian Military Mission—

Germany, Federal Republic of (Berlin)—Head, Sir Alan Watt, C.B.E.

Australian Mission—

United Nations (New York)—Ambassador, J. Plimsoll, C.B.E.
United Nations (Geneva)—Permanent Representative, L. J. Arnott.

Australian Commissioner in—

Singapore, Brunei, Sarawak and North Borneo (Singapore)—G. A. Jockel.

Consuls-General—

Greece (Athens)—G. V. Greenhalgh.
Switzerland (Geneva)—L. J. Arnott.
United States of America (New York)—A. R. Cutler, V.C., C.B.E.
United States of America (San Francisco)—T. W. Cutts.

Consuls—

Denmark (Copenhagen)—C. L. Waterman (Acting).
New Caledonia (Noumea)—K. R. Douglas-Scott.
Portugese Timor (Dili)—W. A. Luscombe.
United States of America (New York)—W. H. Bray.

Trade Commissioner Service of the Commonwealth of Australia—

Canada—R. R. Ellen, M.B.E., Trade Commissioner (Montreal); D. R. McPhee, O.B.E., E.D., Trade Commissioner (Vancouver); W. R. Hudspeth, Commercial Counsellor (Ottawa).
Ceylon—D. F. J. McSweeney, Trade Commissioner (Colombo).
France—A. P. Fleming, O.B.E., Commercial Counsellor and Trade Commissioner (Paris).
Germany, Federal Republic of—R. K. Scott, Commercial Counsellor and Trade Commissioner (Bonn).
Ghana—D. R. Cristofani, Commercial Counsellor and Trade Commissioner (Accra).

- Hong Kong*—G. R. B. Patterson, O.B.E., Senior Trade Commissioner; J. A. Ellis, Trade Commissioner (Victoria).
India—J. A. Back, Commercial Counsellor and Senior Trade Commissioner (New Delhi); G. M. Carr, Trade Commissioner (Bombay); N. S. Pantou, Trade Commissioner (Calcutta).
Indonesia—M. J. S. Knowles, Commercial Counsellor and Trade Commissioner (Djakarta).
Italy—P. F. Donovan, Commercial Counsellor and Trade Commissioner (Rome).
Japan—A. J. Day, M.B.E., Commercial Counsellor and Trade Commissioner (Tokyo).
Kenya—G. W. S. Temby, Trade Commissioner (Nairobi).
Lebanon—H. M. Le Marchand, Trade Commissioner (Beirut).
Malaya, Federation of—W. Cairns, Commercial Counsellor and Trade Commissioner (Kuala Lumpur).
New Zealand—C. A. Allen, M.V.O., Senior Trade Commissioner (Wellington); C. L. Steele, Trade Commissioner (Auckland); S. D. Shubart, Trade Commissioner (Christchurch).
Pakistan—A. R. Taysom, Commercial Counsellor and Trade Commissioner (Karachi).
Peru—M. F. Roberts, Trade Commissioner (Lima).
Philippines, The—P. G. Gilmour, Commercial Counsellor and Trade Commissioner (Manila).
Rhodesia and Nyasaland, Federation of—K. F. McKernan, Trade Commissioner (Salisbury).
Singapore—R. W. Holberton, Commercial Counsellor and Trade Commissioner (Singapore).
Sweden—W. R. Carney, Senior Trade Commissioner; A. C. Slater, Trade Commissioner (Stockholm).
Thailand—R. J. C. Schneeman, Commercial Counsellor and Trade Commissioner (Bangkok).
Union of South Africa—J. L. Chapman, Commercial Counsellor and Trade Commissioner (Johannesburg).
United Kingdom of Great Britain and Northern Ireland—P. R. Searcy, Senior Trade Commissioner (London).
United States of America—A. R. Callaghan, C.M.G., Commercial Counsellor and Trade Commissioner (Washington); H. C. Menzies, Senior Trade Commissioner (New York); B. T. Connolly, Trade Commissioner (San Francisco); E. E. Jarvis, Trade Commissioner (Chicago).
West Indies, Federation of—J. J. Molan (Port of Spain).

Australian Government Trade Correspondents—

- Fiji*—Capt. J. W. Solly (Nadi Airport).
Formosa—E. J. N. Mycock (Taipei).
Hawaii—Group Capt. R. E. Waddy (Honolulu).
Mauritius—J. L. B. Cowan (Curepipe).
Mexico—N. Pelham Wright (Mexico City).
South America—Captain H. Cross (Montevideo Ro Del Uruguay).

3. **Oversea Representation in Australia.**—Consular representatives are not included in the following statement. Particulars of these are contained in a publication *Consular Representatives and Trade Commissioners in Australia*, issued by the Department of External Affairs, Canberra. There are more than 180 such representatives in Australia, and 53 countries are represented.

DIPLOMATIC REPRESENTATIVES IN AUSTRALIA.

Ambassador Extraordinary and Plenipotentiary of—

- Belgium*—His Excellency Monsieur Willy Stevens (Canberra X 2687).
Brazil—(Vacant); Senhor Edmundo Radwanski (Charge d'Affaires) (Canberra X 2680).
Burma—His Excellency U Aung Shwe (Canberra U 1451).
Cambodia—His Excellency Mr. Poc Thieun (Canberra 7 2517).
China—His Excellency Dr. Chen Chih-Mai (Canberra X 4030).
France—His Excellency Monsieur Phillipe Monod (Canberra U 1454).
Germany, Federal Republic of—His Excellency Dr. Hans Mühlenfeld (Canberra U 1553).
Greece—His Excellency Monsieur P. Annino Cavalierato (Canberra 9 0144).

Indonesia—His Excellency Brigadier-General Suadi Suromihardjo (Canberra U 1221).

Ireland—(Vacant); Mr. Sean Kennan (Charge d'Affaires *ad interim*) (Canberra J 3251).

Israel—His Excellency Mr. Moshe Yuval (Canberra U 1309).

Italy—His Excellency Signor Eugenio Prato (Canberra 7 2529).

Japan—His Excellency Mr. Saburo Ohta (Canberra U 1251).

The Netherlands—His Excellency Dr. J. G. de Beus (Canberra U 1256).

The Philippines—His Excellency Mr. M. Ezpeleta (Sydney FL 3138).

South Africa—His Excellency Mr. H. H. Woodward (Canberra U 2370).

Switzerland—His Excellency Mr. F. Gyax (Sydney BL 1291).

Thailand—His Excellency Nai Vadhana Isarabhakdi (Canberra U 8101).

Union of Soviet Socialist Republics—His Excellency Mr. Ivan F. Kurdiukov (Canberra X 1033).

United Arab Republic—His Excellency Mr. M. Yusef (Canberra X 1717).

United States of America—(Vacant); Mr. W. Belton (Charge d'Affaires *ad interim*).

Vietnam—His Excellency Mr. Tran Van Lam (Canberra 7 7240).

High Commissioner for—

Canada—(Vacant); Mr. D. Stansfield (Acting High Commissioner) (Canberra U 2288).

Ceylon—His Excellency Mr. W. D. Gunaratna, O.B.E. (Canberra X 0121).

India—His Excellency Shri Samar Sen (Canberra J 3209).

Malaya, Federation of—His Excellency Dato Suleiman bin Dato Abdul Rahman, P.M.N. (Canberra U 1543).

New Zealand—His Excellency Mr. S. C. Johnston (Canberra U 1030).

Pakistan—His Excellency Mr. J. G. Kharas (Canberra X 0021).

United Kingdom of Great Britain and Northern Ireland—His Excellency Lieutenant-General Sir William Oliver, K.C.B., O.B.E. (Canberra U 2211).

Envoy Extraordinary and Minister Plenipotentiary—

Austria—(Vacant); Dr. W. de Comtes (Charge d'Affaires) (Canberra U 8167).

Chile—(Vacant); Senor Gino Bucchi-Cariola (Charge d'Affaires) (Sydney FM 7442).

Denmark—(Vacant); Mr. Nils C. Stenderup (Charge d'Affaires) (Sydney BW 3547).

Finland—(Vacant); Mr. T. I. Kala (Charge d'Affaires) (Sydney FM 1252).

Sweden—His Excellency M. Nils-Eric Ekblad (Canberra U 1421).

Commissioner for—

Malta—Captain George F. L. Stivala, O.B.E. (Melbourne MU 1291).

TRADE COMMISSIONERS OF OVERSEA GOVERNMENTS IN AUSTRALIA.

Canada—Canadian Government Trade Commissioners—Mr. S. V. Allen (Sydney BW 5696-7) and Mr. H. A. Gilbert (Melbourne MA 3473).

Ceylon—Ceylon Government Trade Commissioner—Mr. E. M. O. Martenstyn (Sydney BL 5039).

India—Indian Trade Commissioner—Shri G. L. Puri (Sydney BW 9518).

Malaya—Malayan Government Trade Commissioner—Inche Bahatun bin Haji Hassan (Sydney BU 5298-9).

New Zealand—Senior New Zealand Government Trade Commissioner—Mr. C. H. Fowler (Sydney BL 3941).

New Zealand Government Trade Commissioner—Mr. A. C. Davys (Melbourne MU 8111).

United Kingdom of Great Britain and Northern Ireland—United Kingdom Senior Trade Commissioner—Mr. F. B. Arnold, C.M.G., O.B.E. (Canberra U 2211).

United Kingdom Trade Commissioners—Messrs. P. B. Hunt and A. F. Collings (Canberra U 2211); Messrs. A. R. Bruce O.B.E., N. L. Hibbs and J. R. Morley (Sydney BU 7521); Messrs. J. W. Stoodley and G. J. Husted (Melbourne MU 5556); Mr. K. R. Allen (Brisbane B 2307); Mr. J. D. Leithead (Perth BA 2042); Mr. M. E. Browne (Adelaide LA 4011).

§ 18. Retail Trade.

1. **General.**—The statistics in this section relate to the number of retail establishments throughout Australia and the value of retail sales of goods by these establishments.

Information of this nature was first collected in respect of the year ended 30th June, 1948, by a full census of all retail establishments. As this was the first census of its type in Australia, its scope and the data sought were the minima consistent with the objective

of securing a record of the number of such establishments, their type, their geographical distribution, their aggregate sales of goods and a simple commodity dissection together with a record of the value of certain services provided. This census was followed by a second census of all retail establishments trading during the year ended 30th June, 1949.

A third census was taken for the year ended 30th June, 1953, in which retailers were asked to furnish more detailed information concerning the dissection of their turnover into commodity groups, and questions were asked about stocks of goods on hand, the number of persons engaged in the business and credit sales.

A further census was taken in respect of the year ended 30th June, 1957. The scope of this census followed the same general principles adopted for the previous census, but some additional questions were asked about type of organization, purchases and customers' indebtedness.

In general terms, the censuses covered the retail trading activities of establishments which normally sell goods by retail to the general public from fixed premises (i.e. shops, rooms, kiosks and yards). Certain types of "service" establishments were also included, e.g., boot repairers, hairdressers, motor garages and service stations and cafés. The censuses included the retail sales of those factories or wholesalers who conducted a regular retail business, but excluded those who only occasionally sold goods by retail. Both new and second-hand goods were included in sales recorded by relevant retail establishments.

During the period between censuses, variations in the value of retail sales have been measured by means of quarterly sample surveys. Annual totals derived from these surveys and some of the results of the 1956-57 census are contained in this section.

2. Value of Retail Sales in Each Commodity Group, Australia.—The following table shows the value of retail sales of goods in each of the commodity groups specified in the years 1954-55 to 1960-61 on a comparable basis throughout. The figures for the year 1956-57 were obtained from the census taken in respect of that year, whereas figures for the other years shown are estimates based on sample surveys.

VALUE OF RETAIL SALES: COMMODITY GROUPS, AUSTRALIA.(a)
(£ million.)

Commodity Group:	Year ended 30th June—						
	1955.	1956.	1957.	1958.	1959.	1960.(b)	1961.(b)
Groceries	302.0	328.7	343.9	358.3	377.3	403.9	434.6
Butchers' Meat	146.9	158.7	170.1	170.8	178.6	193.5	212.1
Other Food (c)	246.5	269.2	282.8	294.5	314.1	343.7	363.4
<i>Total Food and Groceries ..</i>	<i>695.4</i>	<i>756.6</i>	<i>796.8</i>	<i>823.6</i>	<i>870.0</i>	<i>941.1</i>	<i>1,010.1</i>
Beer, Wine and Spirits (d) ..	204.3	222.1	237.5	248.2	245.1	259.5	265.3
Clothing and Drapery	419.3	433.3	380.8	451.0	404.7	444.2	461.5
Footwear	135.6	143.9	59.3	145.0	64.9	72.6	76.8
Hardware(e)	99.0	104.6	144.2	137.7	157.5	169.2	173.8
Electrical Goods(f)	86.4	91.8	113.0	137.7	159.5	195.2	191.6
Furniture and Floor Coverings	86.4	91.8	92.5	97.6	99.8	116.9	119.5
Chemists' Goods	368.2	398.3	76.9	439.0	95.4	105.4	116.9
Newspapers, Books and Stationery	69.3	69.3	69.3	69.3	74.9	81.3	84.9
Other Goods(g)	277.5	277.5	277.5	277.5	281.7	306.1	326.3
<i>Total (excluding Motor Vehicles, etc.) ..</i>	<i>2,008.2</i>	<i>2,150.6</i>	<i>2,247.8</i>	<i>2,342.2</i>	<i>2,453.5</i>	<i>2,691.5</i>	<i>2,826.7</i>
Motor Vehicles, Parts, Petrol, etc.(h)	571.6	613.2	631.4	684.6	744.6	895.4	907.3

(a) Excludes Northern Territory and Australian Capital Territory. (b) Subject to revision.
(c) Includes fresh fruit and vegetables, confectionery, soft drinks, ice cream, cakes, pastry, cooked provisions, fish, etc., but excludes some delivered milk and bread. (d) Excludes sales made by licensed clubs, canteens, etc. (e) Excludes basic building materials (e.g. timber, building sheets, tiles, joinery, cement). (f) Includes radios, television and accessories, musical instruments, domestic refrigerators, etc. (g) Includes tobacco, cigarettes, etc., grain and produce, jewellery, office equipment, etc. (h) Includes tractors, new and used motor vehicles, parts, petrol, etc., but excludes farm machinery and implements, earth-moving equipment, etc.

3. Number of Retail Establishments which sold goods in each Commodity Group and Value of Retail Sales in each Commodity Group, 1956-57, States, etc.—The following tables show the number of establishments which sold goods in each commodity group and the value of retail sales during the year ended 30th June, 1957, for each State and Territory.

NUMBER OF RETAIL ESTABLISHMENTS WHICH SOLD GOODS IN EACH COMMODITY GROUP SPECIFIED, 1956-57.(a)

Commodity Group.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
<i>Foodstuffs—</i>									
Groceries (including Bacon, Butter, etc.)	12,377	8,134	4,568	3,168	2,438	1,273	69	65	32,092
Butchers' Meat	3,426	2,589	1,385	1,006	838	370	20	22	9,656
Fresh Fruit and Vegetables	7,113	3,683	3,674	1,721	1,751	980	38	32	18,992
Bread, Cakes and Pastry	8,761	6,127	3,749	2,188	1,775	703	41	43	23,387
Confectionery, Ice Cream, Soft Drinks (including Milk Drinks)	13,642	8,634	5,484	3,554	3,012	1,395	71	58	35,850
Other Food. (Fish, Poultry, Cooked Meats, Wrapped Lunches, etc.)	7,568	3,952	3,023	1,945	1,396	487	33	36	18,440
<i>Beer, Tobacco, etc.—</i>									
Beer, Wine and Spirits	2,793	2,119	1,346	747	768	302	44	29	8,148
Tobacco, Cigars and Cigarettes	20,317	13,450	7,607	5,003	4,088	1,870	103	102	52,540
<i>Clothing, Drapery, etc.—</i>									
Clothing—									
Men's and Boys' Wear	2,932	2,303	1,485	1,115	973	379	52	35	9,274
Women's, Girls' and Infants' Wear (including Handbags)	4,311	3,589	1,541	1,231	920	449	40	45	12,126
Drapery, Piece-goods, Manchester and Soft Furnishings	2,388	1,796	1,216	928	795	283	38	27	7,477
Footwear—									
Men's and Boys'	2,046	1,509	1,141	835	600	354	36	21	6,542
Women's, Girls' and Infants'	1,766	1,306	907	761	527	303	28	18	5,616
<i>Hardware, Business Machines, etc.—</i>									
Builders' Hardware and Supplies (including Tools of Trade)(b)	2,000	1,655	940	733	743	204	18	22	6,315
Domestic Hardware, Kitchenware, China and Glassware	3,525	2,714	1,626	1,478	1,073	473	34	39	10,962
Business Machines and Equipment	150	92	78	48	63	24	(c)	(c)	466
<i>Electrical Goods, etc.—</i>									
Radios, Radiograms and Record Players	1,482	1,262	693	594	496	162			(c)
Television and Accessories	541	777					14	22	(c)
Musical Instruments, Records, Sheet Music, etc.	592	539	267	266	180	55			1,921
Domestic Refrigerators (including non-electrical)	1,385	1,160	681	539	422	145	13	22	4,367
Other Electrical Goods and Accessories	2,526	2,142	1,149	943	824	327	22	33	7,966
<i>Furniture and Floor Coverings—</i>									
Furniture (including Bedding)	1,165	1,002	559	421	432	146	(c)	(c)	3,755
Floor Coverings	890	738	348	351	278	136	(c)	(c)	2,759
<i>Other Goods—</i>									
Newspapers, Periodicals, Books and Stationery	3,818	3,026	2,479	1,543	1,094	494	(c)	(c)	12,518
Chemists' Goods (including Toiletries, Cosmetics and Dispensing)	4,436	2,871	2,308	1,334	1,390	458	47	35	12,879
Sporting and Travel Goods	1,731	1,197	740	571	516	162	(c)	(c)	4,960
Jewellery, Watches, Clocks, Silverware, etc.	1,707	1,254	750	616	528	207	24	16	5,102
Grain, Feed, Fertilizers	1,758	1,197	1,229	657	630	278	(c)	(c)	5,775
Other Goods (not specified above)	3,103	2,997	1,175	889	685	239	23	44	9,155
<i>Total (excluding Motor Vehicles, etc.)</i>	(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)
<i>Motor Vehicles, etc.(e)—</i>									
Tractors (including parts)	543	395	330	262	224	38	(c)	(c)	1,789
New Motor Vehicles (including Motor Cycles, etc.)	1,256	847	519	305	212	75	17	14	3,245
Used Motor Vehicles (including Motor Cycles, etc.)	1,524	1,068	650	600	363	98	(c)	(c)	4,335
Motor Parts, Accessories, Tyres, Tubes, etc.	3,780	2,763	1,769	1,291	1,189	396	35	24	11,247
Petrol, Oil, Motor Lubricants, etc.	4,805	3,536	2,233	1,488	1,286	557	56	23	13,984
Grand Total	(f)	(f)	(f)	(f)	(f)	(f)	(f)	(f)	(f)

(a) All figures refer to establishments with total retail sales in 1956-57 of £500 or more.
 (b) Excludes Basic Building Materials (e.g. Timber, Building Sheets, Tiles, Joinery, Cement).
 (c) Not available for publication.
 (d) Not available.
 (e) Excludes Farm Machinery and Implements, Earth-moving Equipment, etc.
 (f) Many establishments showed sales in more than one commodity group. Thus the number of establishments selling goods in each commodity group does not add down to the total number of individual establishments, which is as follows:—New South Wales, 44,199; Victoria, 35,268; Queensland, 16,604; South Australia, 11,260; Western Australia, 8,801; Tasmania, 3,857; Northern Territory, 207; Australian Capital Territory, 343; Total, 120,539.

**VALUE OF RETAIL SALES IN EACH COMMODITY GROUP SPECIFIED,
1956-57.(a)**

(£'000.)

Commodity Group.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Foodstuffs—									
Groceries (including Bacon, Butter, etc.) ..	134,737	90,034	53,769	27,498	26,204	11,692	920	1,264	346,118
Butchers' Meat ..	67,191	50,264	21,325	14,532	11,305	5,534	339	570	171,060
Fresh Fruit and Vegetables ..	29,822	22,863	9,690	6,406	5,743	1,865	269	339	76,997
Bread, Cakes and Pastry ..	28,221	21,826	9,453	6,632	4,715	2,129	178	177	73,331
Confectionery, Ice Cream, Soft Drinks (including Milk Drinks)	31,494	27,903	10,056	8,138	5,075	2,579	217	204	85,666
Other Food (Fish, Poultry, Cooked Meats, Wrapped Lunches, etc.) ..	19,907	13,425	6,455	4,281	3,072	960	160	255	48,515
Beer, Tobacco, etc.—(b)									
Beer, Wine and Spirits ..	97,742	63,496	31,842	19,886	17,582	6,984	1,185	778	239,495
Tobacco, Cigars and Cigarettes ..	39,358	29,230	13,187	8,678	6,798	3,043	388	445	101,127
Clothing, Drapery, etc.—									
Clothing—									
Men's and Boys' Wear ..	46,534	33,436	15,297	10,633	7,527	4,190	268	421	118,306
Women's, Girls' and Infants' Wear (including Handbags)	71,221	55,293	21,524	18,004	11,154	6,537	216	654	184,603
Drapery, Piece-goods, Man- chester and Soft Furnishings ..	31,283	20,989	12,477	6,830	5,535	2,299	146	316	79,875
Footwear—									
Men's and Boys' ..	8,208	6,259	2,552	2,074	1,381	893	57	66	21,490
Women's, Girls' and Infants' ..	15,010	11,176	4,494	3,484	2,539	1,239	37	128	38,107
Hardware, Business Machines, etc.—									
Builders' Hardware and Supplies (including Tools of Trade)(c)	37,277	22,079	10,914	5,565	6,005	2,869	183	511	85,403
Domestic Hardware, Kitchen- ware, China and Glassware ..	21,820	18,217	8,086	5,522	4,154	1,659	112	241	59,811
Business Machines and Equip- ment ..	7,946	5,988	2,184	1,675	988	567	(d)	(d)	19,439
Electrical Goods, etc.—									
Radios, Radiograms, and Record Players ..	6,427	5,023	3,178	1,951	1,366	643	65	144	35457
Television and Accessories ..	6,875	9,848							
Musical Instruments, Records, Sheet Music, etc. ..	3,575	2,768	1,382	995	677	299	51	144	9,759
Domestic Refrigerators (includ- ing non-electrical) ..	10,023	7,121	4,938	2,644	2,632	935			
Other Electrical Goods and Accessories ..	14,976	10,488	6,256	3,766	2,786	1,286	103	181	39,842
Furniture and Floor Coverings—									
Furniture (including Bedding) ..	22,854	18,891	8,156	6,306	4,275	1,931	(d)	(d)	62,812
Floor Coverings ..	11,782	9,453	2,787	3,100	1,845	1,277	(d)	(d)	30,454
Other Goods—									
Newspapers, Periodicals, Books and Stationery ..	28,175	21,501	8,715	4,340	4,414	2,174	(d)	(d)	69,745
Chemists' Goods (including Toiletries, Cosmetics and Dis- pensing) ..	31,879	21,281	10,489	6,526	4,560	2,174	139	334	77,382
Sporting and Travel Goods ..	5,914	4,292	1,806	1,201	784	439	(d)	(d)	14,580
Jewellery, Watches, Clocks, Silverware, etc. ..	11,228	7,943	3,452	2,345	1,848	763	74	135	27,788
Grain, Feed, Fertilizers ..	22,539	13,682	9,171	3,164	7,667	1,360	(d)	(d)	57,712
Other Goods (not specified above) ..	20,748	19,277	8,083	5,323	3,261	1,627	72	273	58,664
Total (excluding Motor Vehicles, etc.) ..	884,766	644,046	301,718	191,499	155,892	69,947	5,464	8,694	226,2026
Motor Vehicles, etc.(e)—									
Tractors (including parts) ..	9,798	7,268	9,714	3,131	4,156	893	(d)	(d)	35,026
New Motor Vehicles (including Motor Cycles, etc.) ..	86,433	68,245	36,492	25,259	16,313	9,442	624	1,165	243,973
Used Motor Vehicles (including Motor Cycles, etc.) ..	52,811	37,099	25,026	18,321	14,887	6,344	(d)	(d)	155,465
Motor Parts, Accessories, Tyres, Tubes, etc. ..	29,446	19,728	12,663	7,724	5,807	2,413	344	294	78,419
Petrol, Oil, Motor Lubricants, etc. ..	48,080	35,134	15,240	11,068	8,685	3,805	318	588	122,918
Grand Total ..	1111334	811,520	400,853	257,002	205,740	92,844	7,045	11,489	2897827

(a) All figures refer to establishments with total retail sales in 1956-57 of £500 or more. (b) Excludes sales made by licensed clubs, canteens, etc. (c) Excludes Basic Building Materials (e.g. Timber, Building Sheets, Tiles, Joinery, Cement). (d) Not available for publication. (e) Excludes Farm Machinery and Implements, Earth-moving Equipment, etc.

4. Number of Retail Establishments and Value of Retail Sales Classified According to Main Type of Business, 1956-57, States, etc.—The following tables show the number of establishments and the value of retail sales during the year ended 30th June, 1957, in each State and Territory, classified according to main type of business. In general, the classification of establishments according to main type of business was based on the predominant type of goods sold or service rendered, although the description given by the proprietor was used as a guide.

NUMBER OF RETAIL ESTABLISHMENTS CLASSIFIED ACCORDING TO MAIN TYPE OF BUSINESS, 1956-57.(a)

Main Type of Business.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
<i>Food Stores—</i>									
Grocers	10,129	5,202	3,772	2,081	1,810	1,100	45	39	24,178
Butchers	2,943	2,242	1,271	915	699	295	13	22	8,400
Fruiters	2,214	2,036	515	619	358	89			5,853
Bakers	1,696	1,371	715	404	328	151	13	25	4,681
Confectioners and Milk Bars	2,193	3,128	688	770	403	208			7,410
Cafés	1,130	693	445	104	236	20			2,642
Fishmongers and Poulterers ..	629	504	219	125	121	32	20	25	1,636
Other Food Stores	457	467	103	206	61	30			1,329
<i>Hotels, Tobacconists, etc.—</i>									
Hotels, Wine Saloons	2,222	1,844	1,237	641	531	294	25	8	6,802
Tobacconists	506	373	174	106	92	23	(b)	(b)	1,278
Tobacconist and Hairdressers	978	1,133	188	281	204	64	(b)	(b)	2,853
<i>Clothiers, Drapers, etc.—</i>									
Clothiers and Drapers	4,810	4,187	1,604	1,064	805	309	(b)	(b)	12,857
Footwear Stores	611	710	182	187	89	61	(b)	(b)	1,853
<i>Hardware, Electrical Goods, Furniture, etc., Stores—</i>									
Domestic and Builders' Hardware Stores	1,323	1,447	558	474	349	86	(b)	(b)	4,261
Electrical Goods, Radios and Musical Instruments Stores	1,198	1,000	592	314	286	126	8	15	3,539
Furniture and Floor Coverings Stores	680	691	319	186	178	76	(b)	(b)	2,145
Business Machines Stores ..	89	47	39	27	25	17	(b)	(b)	250
<i>Other Goods Stores—</i>									
Newsagents and Booksellers ..	1,123	925	461	203	289	95			3,112
Chemists	1,551	1,174	523	403	253	96			4,018
Sports Goods Stores	246	178	96	36	24	19			606
Watchmakers and Jewellers ..	738	560	250	149	108	56	14	72	1,875
Grain and Produce Merchants	447	251	143	96	81	16			1,039
Cycle Stores	157	208	76	67	40	11			559
Florists and Nurserymen	462	384	78	94	68	33			1,125
Other Types of Business	1,038	1,145	351	249	191	76			3,070
<i>Total (excluding Motor Vehicle Dealers, etc.) ..</i>	<i>39,570</i>	<i>31,900</i>	<i>14,599</i>	<i>9,801</i>	<i>7,629</i>	<i>3,383</i>	<i>175</i>	<i>314</i>	<i>107,371</i>
<i>Motor Vehicle Dealers, etc.—</i>									
Tractor Dealers	78	39	52	26	31	9			235
New Motor Vehicle Dealers, Garages and Service Stations	3,804	2,827	1,624	1,196	902	406	32	29	10,808
Motor Parts and Tyre Dealers	408	245	182	82	105	34			1,065
Used Motor Vehicle Dealers ..	339	257	147	155	134	25			1,060
<i>Total</i>	<i>44,199</i>	<i>35,268</i>	<i>16,604</i>	<i>11,260</i>	<i>8,801</i>	<i>3,857</i>	<i>207</i>	<i>343</i>	<i>120,539</i>

(a) All figures refer to establishments with total retail sales in 1956-57 of £500 or more.

(b) Not available for publication.

**VALUE OF RETAIL SALES OF GOODS CLASSIFIED ACCORDING TO MAIN TYPE
OF BUSINESS, 1956-57.(a)**
(£'000.)

Main Type of Business.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
<i>Food Stores—</i>									
Grocers	183,868	109,119	78,423	38,834	39,331	17,400	1,549	1,459	470,033
Butchers	67,118	50,126	21,311	14,580	10,851	5,644	416	590	170,636
Fruiters	27,522	23,203	6,715	6,323	4,378	1,235			70,054
Bakers	27,292	17,029	7,301	5,538	3,686	1,717	465	528	58,878
Confectioners and Milk Bars	21,785	31,768	5,760	8,099	3,039	1,729			72,566
Cafés	6,251	3,542	2,651	465	970	76			14,017
Fishmongers and Poulterers ..	5,002	3,998	1,445	980	992	271	253	377	12,765
Other Food Stores	7,844	6,104	1,268	2,278	775	403			18,777
<i>Hotels, Tobacconists, etc.—</i>									
Hotels, Wine Saloons	100,624	65,878	33,093	20,843	17,872	7,426	1,236	747	247,719
Tobacconists	5,752	3,738	1,693	1,325	837	381	(b)	(b)	13,752
Tobacconist and Hairdressers	2,965	3,244	386	1,121	660	215	(b)	(b)	10,600
<i>Clothiers, Drapers etc.—</i>									
Clothiers and Drapers	200,023	146,707	63,766	46,650	31,457	15,711	(b)	(b)	506,990
Footwear Stores	12,747	12,302	3,596	3,228	2,720	1,490	(b)	(b)	36,270
<i>Hardware, Electrical Goods, Fur-</i>									
<i>niture, etc., Stores—</i>									
Domestic and Builders' Hard-									
ware Stores	45,774	32,871	15,039	9,579	8,555	3,772	(b)	(b)	116,327
Electrical Goods, Radios and									
Musical Instruments Stores	32,703	27,326	13,220	6,216	6,355	2,706	200	308	89,034
Furniture and Floor Coverings									
Stores	32,392	25,147	10,147	7,077	4,075	2,500	(b)	(b)	82,115
Business Machines Stores ..	8,152	5,731	2,161	1,752	808	523	(b)	(b)	19,198
<i>Other Goods Stores—</i>									
Newsagents and Booksellers ..	26,016	19,196	7,633	2,741	4,154	1,870			62,060
Chemists	27,371	17,790	8,886	5,317	3,401	1,699			64,866
Sports Goods Stores	3,471	3,012	1,092	535	333	319			8,887
Watchmakers and Jewellers ..	9,776	6,538	2,712	1,612	1,506	591	351	1,143	22,947
Grain and Produce Merchants	22,793	14,272	8,647	2,643	7,647	1,165			57,314
Cycle Stores	1,274	1,319	454	471	252	59			3,829
Florists and Nurserymen	2,588	2,295	519	562	385	214			6,580
Other Types of Business	10,157	10,612	3,995	2,354	1,242	877			29,378
<i>Total (excluding Motor</i>	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)
<i>Vehicle Dealers, etc.) ..</i>	887,260	644,867	301,913	191,123	156,331	69,993	5,406	3,699	2,265,592
<i>Motor Vehicle Dealers, etc.—</i>									
Tractor Dealers	5,941	3,081	6,971	1,786	2,961	741			21,481
New Motor Vehicle Dealers,									
Garages and Service Stations	176,075	136,476	74,709	49,691	34,799	19,138	1,639	2,790	495,010
Motor Parts and Tyre Dealers	10,755	7,319	3,827	2,197	1,896	747			26,901
Used Motor Vehicle Dealers ..	31,303	19,777	13,433	12,205	9,753	2,225			88,843
Total	1,111,334	811,520	400,853	257,002	205,740	92,844	7,045	11,489	2,897,827

(a) All figures refer to establishments with total retail sales in 1956-57 of £500 or more, and are the total value of all commodities sold by the types of business shown. (b) Not available for publication.
(c) These figures differ from their counterparts in the table on p. 1150 because they include retail sales of motor vehicles, etc., made by establishments whose main type of business is other than motor vehicles, and exclude retail sales of goods other than motor vehicles, etc., made by establishments whose main type of business is motor vehicles.

CHAPTER XXXI.

STATISTICAL ORGANIZATION AND SOURCES OF INFORMATION.

§ 1. Statistical Organization in Australia.

1. **Early Development of Australian Statistics.**—(i) *Crown Colony "Blue Books."* Statistical organization in Australia was founded in the "Blue Books" which, in the Crown Colony days, were prepared annually for the information of the Colonial Office. Although primarily intended for administrative purposes, these documents have been important sources of statistical data, even though some important matters are not covered, and others only partially so. These "Blue Books" formed the basis from which later statistical publications were developed. This led to an element of uniformity in statistical compilation within the British Empire.

(ii) *Statistical Registers.* Following the advent of responsible government, which was granted during the period 1851-1860 to all Australian States except Western Australia—and to that State in 1890—the "Blue Book" was succeeded in all States by "Statistical Registers". These were in many respects the old "Blue Books" in a new form, and were largely confined to summaries of the "by-product" statistics of government administrative departments.

The first example of extensive government organization for purely statistical purposes was the taking of periodic population censuses, which were initiated in all States under the Crown Colony régime. The growing need for quantitative data concerning the progress of the several young communities of Australia eventually led to the appointment of official Statisticians commissioned to prepare and publish such data.

(iii) *Statistical Conferences.* To enable the interchange of ideas between States and to obtain uniform State statistics which could be aggregated to Australian totals, conferences were held in the several States from as early as 1861. Altogether, six conferences were held prior to the formation of the Commonwealth Bureau of Census and Statistics in 1906. These were held in 1861, 1875, 1890, 1900, 1902 and 1903. The holding of these conferences has been continued since the formation of the Commonwealth Bureau, and a representative from New Zealand attended up to 1928.

2. **Creation of the Commonwealth Bureau of Census and Statistics.**—Under the provisions of section 51 of the Commonwealth Constitution, power is conferred on the Commonwealth Parliament "to make laws for the peace, order and good government of the Commonwealth with respect to—" (*inter alia*) "(XI.) Census and statistics". In compliance with this provision, the Census and Statistics Act 1905 was passed, and in 1906 the Commonwealth Bureau of Census and Statistics was created. A conference of Statisticians in 1906 defined the relations between the Commonwealth and State Bureaux, and in each case the State Statistician became the representative in his own State of the Commonwealth Statistician for the purpose of administering the Commonwealth Act. In addition, each State has its own "Statistics Act", and although these are not identical in all States, they embody common principles. The Commonwealth Bureau did not attempt to duplicate the existing statistical organization, but endeavoured to use the services of the State statistical offices whenever possible, and to undertake the initial collection of statistics only in fields not already occupied by the States, or in which efficiency demanded complete centralization.

3. **Integration of Statistical Services.**—The creation and development of the Commonwealth Bureau of Census and Statistics, the frequent conferences of Commonwealth and State Statisticians, and the close and increasing liaison between officers dealing with the same subjects in the State and Commonwealth fields, did much to promote uniformity in the official statistical collections and methods employed throughout Australia. The complete realization of this aim could not, however, be achieved, even with the utmost co-operation of those concerned, while seven distinct statistical systems operated.

This became apparent after the 1914-18 War, when the economic problems that then arose drew attention to deficiencies in the Australian statistical data. With a view to overcoming these weaknesses, the Prime Minister of the day proposed to the Premiers' Conference that State statistical offices be transferred to the Commonwealth. Tasmania alone agreed to this, and the transfer was effected in 1924. Since then, an amalgamated office has functioned satisfactorily in that State as a Commonwealth office which also serves State statistical needs.

The boom of the 1920's, the depression of the 1930's, the 1939-45 War, and the post-war boom, each with its special economic problems, imposed a severe strain on the Commonwealth and State statistical systems. Moreover, the development during and since the 1939-45 War of a very considerable volume of new statistics added greatly to the complexities of the several administrations in their efforts to secure, and maintain, uniformity in statistical collections. The establishment of Commonwealth statistical offices in some State capitals ameliorated the situation to some extent—indeed, without their establishment the new and expanded statistical collections could not have been carried out at all. However, this did not solve the problem and constituted only one of a number of improvisations devised to obtain uniform data essential for national purposes, and to satisfy urgent demands for new series of statistics. Furthermore, the excessive amount of time and effort entailed in such improvisations made it impossible to devote the necessary time to the major question of meeting growing statistical needs promptly.

The emergence of the problem of providing uniform statistical services throughout Australia, adequate to meet present-day demands, was foreseen during the 1939-45 War, and in 1949 discussions with the Premiers were initiated by the Prime Minister, with the object of integrating the statistical services of the Commonwealth and the States by agreement. These negotiations were continued by correspondence, and subsequently all State Governments accepted the terms of draft agreements to integrate their respective statistical offices with that of the Commonwealth.

The Statistics (Arrangements with States) Bill was introduced into the Commonwealth Parliament on 17th April, 1956, its purpose being to seek parliamentary approval of the making of arrangements with individual States for, and the setting up of, integrated statistical services. This legislation, permissive in nature, was designed to enable the Commonwealth to enter into an agreement with any State to effect an amalgamation of Commonwealth and State statistical offices and services. The object of such an agreement was that, in each State accepting it, there would be an integrated statistical service operated by Commonwealth statistical officers under the immediate direction of a statistician in the State who would hold office under both the Commonwealth and State governments. Both Commonwealth and State were to be adequately served with statistics, and no State would be required to surrender its existing powers in the field of statistics. The rights of officers transferred under any agreement entered into were provided for. After passing through the usual stages of Parliament, the bill became law on 12th May, 1956.

Integration of the Commonwealth and State statistical services was finally accomplished when the integration arrangement with Victoria came into effect on 15th September, 1958.

4. Scope of the Commonwealth Bureau of Census and Statistics.—The scope of the Commonwealth Bureau of Census and Statistics has constantly been widened, more particularly during the 1939-45 War, when the Bureau responded to the urgent demands of administration for immediate and accurate statistical information in various fields. Since the War, requirements in the administrative, industrial, financial and scientific spheres have led to the development of many new statistical collections. All the activities of the Bureau are covered by the Census and Statistics Act, which confers authority to collect information and contains stringent provisions to ensure that the information obtained is treated in strictest secrecy.

The following sections of this paragraph relate specifically to the organization and operation of the Commonwealth Bureau of Census and Statistics in Canberra. In the State Offices, the pattern is broadly similar, although local requirements have naturally given rise to differences in detail.

For administrative purposes, the Commonwealth Bureau, Canberra, is divided into a number of Divisions. These are:—Census, Compiling, Development, Methodology and Sampling, Publications, Research and Social Accounts, Mechanical Tabulation and Administrative.

(a) *Census Division.* This Division of the Bureau is responsible for the taking of periodic population censuses, and the tabulation, summarization and preparation for publication of the results obtained.

(b) *Compiling Division.* The Compiling Division is divided into the following Branches which compile statistics dealing with specific fields of activity:—

Trade and Transport Branch—Responsible for the original compilation, tabulation and analysis of statistics relating to imports and exports, and for the compilation of statistics relating to road and rail transport, aviation, shipping, posts, telegraphs and telephones, and broadcasting and television.

Employment and Labour Branch—Compiles all employment estimates, wage and labour statistics.

Primary Production Branch—Deals with statistics relating to agricultural and pastoral activities, mining, forestry and fishing. Original data are supplied largely by State Statisticians.

Secondary Production Branch—Compiles all factory statistics both annual and monthly. Collates on a Commonwealth basis original data supplied by State Statisticians.

Finance and Taxation Branch—Compiles statistics of private finance (banking, insurance, exchange rates, etc.), public finance (Commonwealth, State, and Local and Semi-Governmental authorities), and statistics relating to all aspects of Commonwealth taxation.

Demography Branch—Concerned with statistics of births, deaths, marriages and migration, and the making of periodic estimates of population.

(c) *Development Division*. This Division was created in order to develop new statistical collections to meet post-war demands for more adequate and up-to-date statistics, and also to examine current collections in the light of such requirements. It is divided into three Branches, namely:—

Development Branch—Develops new statistical collections and examines current collections in the light of present-day requirements. Included in the latter are Social Statistics.

Prices Branch—Deals with the collection of retail and wholesale prices and the compilation of retail and wholesale price index numbers. A staff of trained field officers is maintained in the several States to facilitate the collection of accurate information.

Business Statistics Branch—Conducts censuses and surveys and analyses statistics relating to internal trade (retail), business and hire purchase activities, and company investments and profits.

(d) *Methodology and Sampling Division*. Undertakes the development of sampling procedures and their application to statistical collections and furnishes technical advice to other Divisions and Departments.

(e) *Publications Division*. This Division is responsible for the editing and graphical illustration of all Bureau publications, and, in collaboration with other Divisions, for the initiation, development and co-ordination of statistical publications. It also maintains a regular flow of statistical series to certain international organizations, and revises statistical material in certain overseas and local publications.

(f) *Research and Social Accounts Division*. This Division is responsible for the preparation of all estimates in the field of social accounts and for research into this and other fields of statistics. It is divided into four branches as follows:—

National Income and Expenditure Branch—Prepares and analyses estimates of national income and expenditure and tables of social accounts.

Balance of Payments Branch—Prepares and analyses estimates of Australia's balance of international payments.

Quantum Indexes Branch—Prepares indexes of quantum of imports, exports, etc., and undertakes research into quantum of production, national expenditure, etc.

Research Branch—Carries out research into specific fields of statistics.

(g) *Mechanical Tabulation Division*. This Division is equipped with modern tabulating equipment including three electronic units, and is responsible for all machine tabulating work required by other Divisions of the Bureau with the exception of the Census Division. It also carries out work for other Commonwealth Departments as capacity is available.

(h) *Administrative Division*. The Administrative Division is responsible for all aspects of staff recruitment and direction, supplies, payment of accounts, etc. The Reproduction Section of the Division is equipped with multilith and duplicating machines for processing statistical statements for more immediate requirements. In addition, a section of this Division is responsible for the co-ordination of statistics in Commonwealth Departments (see para. 5 below). The specialized library of official and unofficial publications on statistics and economics is controlled by the Administrative Division.

5. Relation of the Bureau to other Commonwealth Departments.—In October, 1950, the Commonwealth Public Service Board issued a circular relative to the compilation of statistics in other Commonwealth Departments, in which it stated that the Commonwealth Statistician should be the co-ordinating authority on all statistics in Commonwealth Departments, and that, as a general principle, where any new statistical field is to be established involving the regular collection of statistics, the Commonwealth Statistician should be consulted to ensure that they are necessary and that they are based on sound statistical methods; furthermore, that the Commonwealth Statistician should make a regular inspection, at least once every twelve months, of all statistical work done by Departments to ensure that their needs are met by the most economical means and without duplication of effort.

This project of co-ordination is being implemented as statistical developments require and as time and circumstances permit.

§ 2. Statistical Publications of Australia.

1. **General.**—The official statistical publications of Australia may be divided bibliographically into two main divisions, namely:—(i) Commonwealth publications dealing both individually and collectively with the several States of Australia; and (ii) State publications dealing with individual States only.

2. **Commonwealth Publications.**—Commonwealth publications containing statistics may be grouped under two heads, namely:—(i) Publications issued by the Commonwealth Statistician; and (ii) Parliamentary and Departmental Reports and Papers.

(i) *Publications issued by the Commonwealth Statistician.* The following is a list of the principal statistical publications issued from the Commonwealth Bureau of Census and Statistics since its inauguration to October, 1961:—

Australian Balance of Payments.—Statements Nos. 1 to 3, 1928–29 to 1951–52.

Australian Exports.—Annually, 1958–59 to 1960–61.

Australian Life Tables, 1901–1910. *Australian Joint Life Tables, 1901–1910.*

Australian Life Tables, 1920–1922.

Australian Life Tables, 1932–1934. *Australian Joint Life Tables, 1932–1934.*

Australian Life Tables, 1946–1948.

Australian Life Tables, 1953–1955.

Australian Mineral Industry Statistics (formerly *Minerals and Metals Bulletin*).—Part 2 of Quarterly Bulletin issued jointly with the Bureau of Mineral Resources.

Australian Primary Industries.—Report prepared for the Empire Producers Conference, Sydney, March, 1938.

Census (1911) Results.—Bulletins. Vols. I. (Statistician's Report), II., and III., with Appendix *Mathematical Theory of Population*.

Census (1921) Results.—Bulletins, Nos. 1 to 26. Parts I. to XVI., forming Vol. I., and Parts XVII. to XXIX., forming, with the Statistician's Report, Vol. II. NOTE.—Part XXVII., Life Tables.

Census (1933) Results.—Bulletins, Nos. 1 to 25. Parts I. to XIV., forming Vol. I., Parts XV. to XXVIII., forming Vol. II., and Parts XXIX. to XXXVII., forming, with the Statistician's Report and Australian Life Tables, 1932–1934, Vol. III.

Census (1947) Results.—Bulletins, Nos. 1 to 25. Parts I. to XVI., forming Vol. I., Parts XVII. to XIX., forming Vol. II., and Parts XX. to XXVIII., forming, with the Statistician's Report and Australian Life Tables, 1946–1948; Vol. III.

Census (1954) Results.—See Price List at end of this volume.

Census of Motor Vehicles, 1947–48 (see *Survey of Motor Vehicles, 1947–48*).

Census of Motor Vehicles, 31st December, 1955.—Bulletins, Nos. 1 to 8.

* *Census of Retail Establishments (1947–48) Results.*—Bulletins, Nos. 1 to 7.

* *Census of Retail Establishments (1948–49) Results.*—Bulletins, Nos. 1 to 7.

* *Census of Retail Establishments (1952–53) Results.*—Bulletins, Nos. 1 to 14.

Census of Retail Establishments (1956–57) Results.—Bulletins, Nos. 1 to 8 (mimeograph)* and 9 to 15 (printed).

* *Dairying Industry* (formerly *Summary of Dairying Industry*).—Statistical Bulletin, monthly; first issue, September, 1937.

Demography.—Bulletin, annually, 1911 to 1959.

* *Digest of Current Economic Statistics.*—Monthly, since August, 1959.

* *Factories, Principal Statistics, Summary.*—Annually, 1948–49 to 1958–59.

Finance.—Bulletin, 1907 to 1916–17 annually; 1917–18 and 1918–19 (one vol.); 1919–20 and 1920–21 (one vol); 1922–23 to 1958–59 annually. From 1955–56 issued in two parts; Part I., Public and Private Finance; Part II., Commonwealth Taxation.

* *Food Production and the Apparent Consumption of Foodstuffs and Nutrients in Australia, Report on.*—Statistical Bulletin, half-yearly, 1946–47 to 1947–48; annually, 1948–49 to 1959–60.

* *Fruit Growing Industry* (formerly *Summary of Fruit Growing Industry*).—Statistical Bulletin, annually, 1944–45 to 1959–60.

Imports Cleared for Home Consumption.—Annually, 1950–51 to 1960–61.

Labour and Industrial Statistics.—Memoranda and Reports, various, to 1913.

Labour Report.—Annually, 1913 to 1959.

* Distributed by the Commonwealth Statistician—for methods of obtaining other publications still in print see back page of this volume.

- * *Livestock Numbers* (formerly *Summary of Livestock Statistics*).—Statistical Bulletin, annually, 1943 to 1961.
- Local Government in Australia*.—July, 1919.
- * *Manufacturing Industries*.—Bulletins on Individual Industries, annually, 1936-37 to 1939-40, 1940-41 (issue incomplete), and 1944-45 to 1959-60.
- Monthly Review of Business Statistics*.—First issue, October, 1937.
- * *Occupation Survey (1945) Results*.—Detailed tables.
- Official Year Book of the Commonwealth of Australia*.—Annually, 1907 to present issue (No. 47). Issues Nos. 40 to 47 also published in parts.
- Oversea Trade*.—Bulletin, annually, 1906 to 1960-61.
- * *Oversea Trade*.—Preliminary Bulletin. Annually, 1952-53 to 1960-61.
(See also *Australian Exports and Imports Cleared for Home Consumption*).
- Pocket Compendium of Australian Statistics* (formerly *Statistical Digest*).—1913, 1914, 1916, and 1918 to 1961 annually.
- Population and Vital Statistics*.—Bulletins and Reports, various, 1906-1910.
- Primary Industries*.—Bulletins, annually, 1950-51 to 1958-59, in two parts—Part I. Rural Industries; Part II. Non-Rural Industries and Value of Production.
- Production*.—Bulletin, annually, 1906 to 1949-50. From 1936-37 to 1949-50 issued in two parts—Part I. Secondary Industries; Part II. Primary Industries (including Total Recorded Production); thereafter separate Bulletins (see *Primary Industries and Secondary Industries*).
- Professional Papers*.—Various. A full list appears in Official Year Book No. 13, page 3.
- Quarterly Summary of Australian Statistics*.—First issue, No. 70. December, 1917, replacing *Monthly Summary of Australian Statistics* (Bulletins Nos. 1 to 69).
- * *Report of Proceedings of the Conference of British Commonwealth Statisticians*, 1951.
- * *Rural Land Use and Crop Production* (formerly *Summary of Crop Statistics*).—Statistical Bulletin, annually, 1943-44 to 1959-60.
- Secondary Industries*.—Bulletin, annually, 1950-51 to 1958-59.
- * *Size Classification of Rural Holdings*, 1955-56.—Bulletins Nos. 1 to 7.
- Social Insurance*.—Report to the Hon. the Minister for Trade and Customs, 1910.
- Social Statistics*.—Bulletin, 1907 to 1915 annually, and 1918.
- Superannuation for the Commonwealth Public Service*.—Report to the Hon. the Minister for Home Affairs, 1910.
- * *Survey of Motor Vehicles (1947-48) Results*.—Bulletins Nos. 1 to 7.
- Transport and Communication*.—Bulletin, 1906, 1908 to 1916 annually, 1919 to 1930 annually, and 1932 to 1959-60 annually.
- Wealth*.—The Private Wealth of Australia and its Growth as ascertained by various methods, together with a Report on the War Census in 1915.
- * *Wheat Industry* (formerly *Summary of the Wheat Situation*).—Statistical Bulletin, periodically; first issue, July, 1936.
- * *Wool Production and Utilization*.—Bulletin, annually, 1952-53 to 1959-60.

The foregoing list includes all the printed publications issued from the Bureau, and certain more important mimeographed publications issued for the most part annually. Minor changes in the titles of several publications have not been referred to above. Copies of a number of these publications, particularly earlier issues, are not available. Other mimeographed statements are distributed by the Commonwealth Statistician and deal with a wide variety of subjects, as follows:—

Annually.—Bee Farming; Factory Products (Principal); Fire, Marine and General Insurance; Fishing and Whaling; Milking Machines on Rural Holdings; Mining and Quarrying; Oversea Investment; Registrations of New Motor Vehicles; Taxation Collections; Trade of Australia with Eastern Countries; Rural Statistics of the Australian Capital Territory; Tractors on Rural Holdings; University Statistics; Value of Production; Wheat Industry; Wine and Brandy Statistics; Wool Production.

Half-yearly.—Australian Balance of Payments; Capital and Maintenance Expenditure; Labour Turnover; Trade of Australia with the United Kingdom; Road Traffic Accidents.

Quarterly.—Building; Consumer Price Index; National Income and Expenditure; New Capital Raisings; New Tractor Statistics; Retail Sales of Goods.

* Distributed by the Commonwealth Statistician—for methods of obtaining other publications still in print see back page of this volume.

Monthly.—Banking (General); Building Approvals; Demographic Review; Employment; Exports of Wool; Export Prices Index; Gold Mining Industry; Life Assurance; Meat Industry; Oversea Trade; Production Statistics; Registrations of New Motor Vehicles; Retail Hire Purchase Operations of Finance Businesses; Retail Sales of Goods (Total); Savings Banks; Wholesale Price (Basic Materials and Foodstuffs) Index.

In addition to the above-mentioned publications, most of which are issued regularly, there have been a number of statements issued by this Bureau which contain the results of special surveys or new statistical series and descriptions thereof. The more important of these are listed below.

Occasional Publications.—Special Business Surveys—No. 1. Average Wage and Salary Earnings (1947); No. 2. Incidence of Industrial Awards (1948); No. 3. Part-time Employment (1948); No. 4. Methods of Payments to Employees (1949); No. 5. Receipts and Payments of Rent, Interest and Royalties, 1949–50; No. 6. Average wage and Salary Earnings (1952); No. 7. Private Superannuation Schemes, 1951–52 (reprinted in *Finance Bulletin* No. 44); No. 8. Incidence of Industrial Awards (1956); No. 9. Private Pension and Retiring Allowance Schemes, 1955–56 (reprinted in *Finance, Part I. Bulletin* No. 47); No. 10. Receipts and Payments of Interest, Rent and Royalties, 1956–57; No. 11. Private Pension and Retiring Allowance Schemes, 1955–56 to 1957–58; No. 12. Private Pension and Retiring Allowance Schemes, 1955–56 to 1958–59.

Survey of Wage Rates and Earnings, September, 1960; New Indexes of Minimum Weekly Wage Rates—Adult Males and Adult Females (1960); Minimum Weekly Wage Rate Index—Components of Total Wage Rate (1961); A Description of the Consumer Price Index (1961); Minimum Weekly Wage Rates, January, 1957, to June, 1961.

Further information on current publications of the Commonwealth Bureau of Census and Statistics is contained in a List of Publications available free, on request, from the Commonwealth Statistician, Canberra. This List contains also a subject index to show the Bureau publications in which information on the various subjects dealt with by the Bureau is to be found.

(ii) *Commonwealth Parliamentary and Departmental Reports and Papers.* Lists of the principal official reports and other documents containing statistical information issued from the inauguration of the Commonwealth appear in the Official Year Books up to No. 13, but it is not now practicable to undertake the preparation of such lists.

3. *State Publications.*—The chief statistical publications of each State are set out hereunder. As with the Commonwealth Parliamentary and Departmental Reports and Papers, it is not practicable to enumerate the various Departmental Reports, statements of accounts, etc., issued by officials, boards, local and semi-governmental authorities, etc., in each State.

- (a) *New South Wales.*—New South Wales Statistical Register (annually); Official Year Book of New South Wales (annually); Pocket Year Book of New South Wales (annually); New South Wales Statistical Bulletin (monthly to December, 1919, quarterly to June, 1943, then discontinued to September, 1948); New South Wales Monthly Summary of Business Statistics.
- (b) *Victoria.*—Statistical Register of Victoria (annually to 1916, then discontinued); Victorian Year-Book (annually); Victorian Pocket Year Book (annually); Victorian Statistical Abstract (quarterly to 1917, then discontinued to December, 1946, quarterly to March, 1958, then discontinued); Victorian Monthly Statistical Review.
- (c) *Queensland.*—Statistics of the State of Queensland (annually); Queensland Official Year Book, 1901; A.B.C. of Queensland Statistics (annually to 1936, then discontinued); Queensland Year Book (annually 1937 to 1941, then discontinued to 1945); Queensland Pocket Year Book (annually); Queensland Statistics, Monthly Summary.
- (d) *South Australia.*—Statistical Register of South Australia (annually); Official Year Book of South Australia, 1912 and 1913; Statesman's Pocket Year Book of South Australia (annually); Quarterly Abstract of South Australian Statistics; Monthly Summary of Statistics, South Australia.
- (e) *Western Australia.*—Statistical Register of Western Australia (annually); Western Australian Statistical Abstracts (quarterly, previously issued monthly to July, 1917); Pocket Year Book of Western Australia (annually); Official Year Book of Western Australia (new series) from 1957; Monthly Statistical Summary, Western Australia.

- (f) *Tasmania*.—Statistics of the State of Tasmania (annually); Pocket Year Book of Tasmania (annually); Tasmania, Monthly Review of Business Statistics.

Apart from these publications, the Deputy Commonwealth Statisticians also issue a number of mimeograph publications on particular subjects, similar in range to those of the Commonwealth Bureau.

The Commonwealth Bureau of Census and Statistics, commencing with the year 1960, has produced an annual publication on statistics of the Northern Territory, entitled the Northern Territory Statistical Summary.

§ 3. The Third Conference of British Commonwealth Statisticians, Canberra, 1951.

Conferences of the Government Statisticians of the British Commonwealth were held first in London in 1920 and then in Ottawa in 1935. The third Conference was held in Canberra, from 12th to 23rd November, 1951. Delegates were present from Australia, Canada, Ceylon, India, New Zealand and the United Kingdom (including a representative of the Colonial Office). Ireland, the Commonwealth Economic Committee and the United Nations were represented by observers, and the Australian State Government Statisticians were also present. A summary of the activities of the conference may be found in Official Year Book No. 39, page 1320. The fourth Conference was held in London in 1956 and the fifth was held in New Zealand in November, 1960.

§ 4. Select List of Australian Books.

(Compiled by the Librarian of the Commonwealth National Library.)

This list of *Australian Books* is designed to meet the growing need, in Australia as publishing develops, and overseas as interest in Australia widens, for an authoritative current reference and reading list of books dealing with Australia, or of Australian authorship, wherever published.

Australians will find these books in the National Library and in their State Libraries as well as in leading bookshops. Oversea readers may have access to them in the collections which the National Library maintains at 53 Australian posts in 39 countries, at places such as Australian Embassies, or Offices of the Australian High Commission, Consulate-General, Consulate or Trade Commissioners. They will be found also, increasingly, in leading libraries and bookshops in many countries. For example, they are supplied by the National Library to the National Library of Canada and the National Diet Library, Japan. In the United States, also, Australian books are included in the Farmington Plan in which 62 libraries and research institutions co-operate to ensure that at least one copy of all material published in any part of the world and likely to be required for a serious purpose will be available promptly somewhere in the country.

The list is classified broadly by subject, and under each heading there is first a list of the principal standard books still in print, then a list of selected books and official publications (excluding annual reports) published in the last few years. To ensure that, so far as is possible, an evenness of standard is maintained in the compilation of the list, the advice of a representative range of experts in the various subject fields has been sought. Where known, the retail price in the country of publication is given, but this is subject to fluctuation.

The Library also issues a series of select lists which include:—*Australian Public Affairs Information Service* (monthly and, since 1955, cumulated annually); a subject index of material in new books, pamphlets, current periodicals and government publications from English-speaking countries, with an important bearing on investigations into Australian political, economic, cultural and social affairs; and the following full bibliographies.

Australian National Bibliography, a monthly list of monographs (including government publications), maps, prints, sheet music and moving picture films, of Australian interest.

An annual cumulation of *Australian National Bibliography* and an annual publication entitled *Australian Government Publications*, listing Commonwealth and State government monographs and serials.

General and Descriptive.

STANDARD WORKS IN PRINT.

- ANNUAL CATALOGUE OF AUSTRALIAN PUBLICATIONS: Canb. National Library of Australia, 1936 to date. 6s. 6d. *per issue*.
- AUSTRALIA. National Library—*Australian Bibliographical Centre*. Australian bibliography and bibliographical services. Canb., Australian Advisory Council on Bibliographical Services, 1960. 15s.
- Union list of newspapers in Australian libraries. Canb., Australian Advisory Council on Bibliographical Services, 1959 to date. 2 pts. and supplements. Pt. 1, 10s.; pt. 2, 27s. 6d. (*Contents*: pt. 1, Newspapers published outside Australia; pt. 2, Newspapers published in Australia.)
- National Library—*Film Division*. Australian films: a catalogue of scientific, educational and cultural films, 1940–1958. Canb., Govt. Pr., 1959. 12s. 6d.
- AUSTRALIAN ENCYCLOPAEDIA: (ed. in chief Alec. H. Chisholm): 10 v. Syd., Angus and Robertson, 1958. £50.
- AUSTRALIAN PUBLIC AFFAIRS INFORMATION SERVICE: a subject index to current literature. Canb., National Library of Australia, 1945 to date. Monthly. 2s. 6d. *per issue*.
- AUSTRALIAN QUARTERLY: a quarterly review of Australian affairs. Syd., Australian Institute of Political Science, 1929 to date. 4s. *per issue*.
- BANK OF NEW SOUTH WALES. Australia for the visitor. Syd., 1956. 17s. 6d.
- DAKIN, W. J. Great Barrier Reef. Melb., Australian National Travel Association, 1955. 10s. 6d.
- FINLAYSON, H. H. The red centre: man and beast in the heart of Australia (2nd ed.). Syd., Angus and Robertson, 1952. 21s.
- HILL, ERNESTINE. The great Australian loneliness. Melb., Robertson and Mullens, 1952. 27s. 6d.
- NOBLE, N. S., ed. The Australian environment: 3rd. ed. Melb., C.S.I.R.O. in association with Melbourne Univ. Press, 1960. 30s.
- OFFICIAL YEAR BOOK OF THE COMMONWEALTH OF AUSTRALIA. Canb., Govt. Pr., 1908 to date 5s. *per issue*; after No. 38, 10s.; after No. 46, 20s. Latest issue No. 47. (Available also in parts relating to specific subjects.)
- PRESS DIRECTORY OF AUSTRALIA AND NEW ZEALAND. Syd., Country Press, 1914 to date. Irreg. Latest issue: 1958.
- TAYLOR, T. G. Australia: a study of warm environments and their effect on British settlement (7th ed. revised and enlarged). Lond., Methuen, 1959. 57s. 9d.
- UNITED STATES—*Interior, Department of the—Office of Geography*. Australia: official standard names approved by the United States Board of Geographic Names. Wash., D.C. 1957. \$4.00.
- WALKABOUT: Australian geographical magazine: v. li to date. Melb., Australian Geographical Society, 1934 to date. Monthly, 32s. 6d. *per annum*.
- WARD, R. B. The Australian legend. Melb., Oxford Univ. Press, 1958. 45s. (An historical analysis of Australian national characteristics.)

RECENT PUBLICATIONS OF INTEREST.

- AUSTRALIA—*National Capital Development Commission*. Planning survey report of Canberra city district. Canb., 1959. 10s.
- AUSTRALIA—*Trade, Department of*. Australian profile: Lausanne, Commonwealth Govt. of Australia, 1960. For overseas distribution only.
- AUSTRALIAN NATIONAL TRAVEL ASSOCIATION. Australian tourist guide: Melb., 1960. 7s. 6d.
- AUSTRALIAN PUBLICITY COUNCIL. Liquid gold: Australia. Melb., 1960. 49s. 6d.
- Melbourne: big, rich, beautiful. Melb., 1960. 45s.
- BHATTY, W. A treasury of Australian folk tales and traditions. Syd., Ure-Smith, 1960. 32s. 6d.
- BEST, R. J., ed. Introducing South Australia. Melb., Melbourne Univ. Press for Australian and New Zealand Association for the Advancement of Science, 1958. 37s. 6d. (Handbook prepared for the A.N.Z.A.A.S. meeting, Adelaide, August, 1958.)
- BLUNDEN, G. The land and people of Australia: 2nd. ed. Phil., Lippincott, 1959. \$29.50.
- BRISSENDEN, A. They came to Australia: an anthology: ed. by Alan Brissenden and Charles Higham. Melb., Cheshire, 1960. 17s. 6d. (Extracts from writings on Australia from the time of Dampier to the present day.)
- CORRIGAN, M. Australian adventure: by Mark Corrigan (*pseud.*; i.e., Norman Lee). Lond., Hale, 1960. 18s.
- GILES, J. M. Migrant Australia: Lond., Mills and Boon, 1960. 12s. 6d.
- HENDERSON, K. R. Australia: introd. by K. R. Henderson. Neuchâtel, Switzerland, Ides et Calendes, 1960. 35s. (A colourful pictorial survey of Australia.)
- IDRISS, I. E. The wild north. Syd., Angus and Robertson, 1960. 22s. 6d. (Anecdotes of Australia's outback.)
- JOHNSTON, B. H., comp. A glimpse of Australia. Syd., F. H. Johnston Pub. Co., 1958. 21s. 6d.
- LOCKWOOD, D. Crocodiles and other people. Lond., Cassell, 1959. 23s. 9d.
- MARCHINI, U. Australian: 2nd. ed. Rome, Società Tipografica Italia, 1960. (A general account of Australia in Italian for prospective migrants.)
- NEW SOUTH WALES—*Premier's Department*. New South Wales, Australia. Syd., Govt. Pr., 1959.
- NIEMELA, J. N. Australia: the great south land. Syd., Angus and Robertson, 1956. 15s.
- BRINGUE, J. M. D. Australian accent: drawings by George Molnar. Lond., Chatto and Windus, 1958. 18s.
- REES, Coralie. Coasts of Cape York: travels around Australia's pearl tipped peninsula. Syd., Angus and Robertson, 1960. 27s. 6d.
- SIMPSON, G. Australian image. Syd., Legend Press, 1956. 32s. 6d. (Illustrated with reproductions of the works of Australian landscape painters.)
- STANDARD YEAR BOOK 1960: general ed. Vera E. Francis. Melb., Standard Publishing Co., 1960. 95s.
- STRIZIC, M. Melbourne, a portrait: by Mark Strizic and David Saunders. Melb., Georgian House, 1960. 37s. 6d.
- THE SUNNY SOUTH: a pictorial review of South Australia: Adeli, Rigby, 1960. 45s.

Travel Abroad.

RECENT PUBLICATIONS OF INTEREST.

- BARTLETT, N. *Land of the lotus eaters: a book mostly about Siam.* Lond., Jarrolds, 1959. 25s.
 CLIFT, CHARMIAN. *Peel me a lotus.* Lond., Hutchison, 1959. 18s. (Chronicle of family life on a Greek island in the Aegean Sea.)
 DONOVAN, MARIA. *It's a square world.* Melb., Cheshire, 1959. 16s.
 DUTTON, G. P. H. *States of the Union.* Lond., Chapman & Hall, 1958. 21s. (Impressions of a tour in the United States.)
 GORE, S. *Australians go home.* Lond., Hale, 1958. 18s. (An account of two Australian's travels in England.)
 MOOREHEAD, A. M. *No room in the ark.* Lond., Hamilton, 1959. 21s. (An account of a journey through Eastern and Southern Africa.)
 NEW SOUTH WALES—*Official Secretary, London.* *Australians in the British Isles.* Lond., 1960. (A guide for Australians travelling in Great Britain.)
 PINNEY, P. P. *Anywhere but here.* Syd., Angus and Robertson, 1956. 21s. (A description of a journey across Africa from Mozambique to the Sahara.)
 ROWLANDS, LESLIE. *Why can't the English: illus. by Cedric Flower.* Syd., Ure Smith, 1959. 20s. (The author's experiences of life in London and of travels in England.)
 ROWLEY, C. D. *The lotus and the dynamo: a traveller in South-East Asia.* Syd., Angus and Robertson, 1960. 30s.
 SIMPSON, C. *Wake up in Europe: a book of travel for Australians and New Zealanders.* Syd., Angus and Robertson, 1959. 37s. 6d.

Commonwealth Territories.

STANDARD WORKS IN PRINT.

- AUSTRALIAN NATIONAL ANTARCTIC RESEARCH EXPEDITION, 1947-1949. *Reports.* Melb., Antarctic Division, Department of External Affairs, 1951 to date.
 GORDON, D. C. *The Australian frontier in New Guinea 1870-1885.* N.Y., Columbia Univ. Press, 1951. \$4.25.
 HANDBOOK OF PAPUA AND NEW GUINEA, 1958: comp. and ed. by R. W. Robson. (2nd ed.) Syd., Pacific Publications, 1958. 30s.
 LAW, P. G. *ANARE Australia's Antarctic outposts: by Phillip Law and John Bechervaise.* Melb., Oxford Univ. Press, 1957. 60s.
 LEESON, IDA. *A bibliography of bibliographies of the South Pacific.* Melb., Oxford Univ. Press, 1954. 15s. (Published under the auspices of the South Pacific Commission.)
 PAPUA AND NEW GUINEA, *Territory of—Laws, statutes, etc.* *Laws of the Territory of Papua-New Guinea, 1945-1949 (annotated)* . . . together with supplements to the Laws of the Territory of Papua, 1888-1945 (annotated) and the laws of the Territory of New Guinea 1921-1945 (annotated). Syd., Govt. Pr., 1952. 420s. per set.
 SCHOLES, W. A. *Seventh continent: saga of Australian exploration in Antarctica 1895-1950.* Lond., Allen and Unwin, 1953. 21s.
 STANNER, W. E. H. *The South Seas in transition: a study of post-war rehabilitation and reconstruction in three British Pacific dependencies.* Syd., A'sian Pub. Co., 1953. 50s.
 See also the annual reports of the Commonwealth Department of Territories, and the reports to the General Assembly of the United Nations on trusteeship territories, and the section headed *Ethnology* in this List.

RECENT PUBLICATIONS OF INTEREST.

- AUSTRALIA—*Census and Statistics, Commonwealth Bureau of.* Northern Territory statistical summary. Canb., 1960 to date.
 ——— *Minister for Territories.* Papua and New Guinea: some recent statements of Australian policy on political advancement. Canb., 1960. *gratis*.
 ——— *Territories, Department of.* Australian territories. Canb., 1960 to date. *gratis*.
 ——— *Souvenir booklet: Northern Territory centenary of exploration, 1860-1960.* Canb., 1960. *gratis*.
 AUSTRALIAN INSTITUTE OF POLITICAL SCIENCE—*24th Summer School, Canberra, Jan., 1958.* New Guinea and Australia: (papers read at the Summer School: ed. by John Wilkes: introd. by D. M. Cleland). Syd., Angus and Robertson, 1958. 25s.
 BARTLETT, R. *A man like Bati: the Rev. Reginald Bartlett: the story of his missionary work in Papua and Samoa as told in his letters home.* Lond., Independent Press, 1960. 8s. 6d.
 BELSHAW, C. S. *The great village: the economic and social welfare of Hanuabada, an urban community in Papua.* Lond., Routledge & K. Paul, 1957. 30s.
 BOWMAN, G. *Men of Antarctica.* N.Y., Fleet Publishing Corporation, 1958. \$3.95.
 DEAN, Beth. *Softly, wild drums: in New Guinea to-day with Beth Dean and Victor Carell.* Syd., Ure Smith, 1958. 25s.
 DEBENHAM, F. *Antarctica: the story of a continent.* Lond., H. Jenkins, 1959. 25s.
 HUGHES, BRENDA. *New Guinea folk tales.* Lond., Harrap, 1959. 6s.
 LOCKWOOD, D. *Fair dinkum.* Lond., Cassell, 1960. 24s. (Anecdotal account of life in the Northern Territory.)
 ROWLEY, C. D. *The Australians in German New Guinea 1914-1921.* Melb., Melbourne Univ. Press, 1958. 52s. 6d.
 RUHEN, O. *Land of Dahori: tales of New Guinea.* Phil., Lippincott, 1957. \$3.75.

History.

STANDARD WORKS IN PRINT.

- CLARK, C. M. H., ed. *Select documents in Australian history 1788-1900: selected and ed. by C. M. H. Clark with the assistance of L. S. Pryor.* 2 v. Syd., Angus and Robertson, 1950-1955. 112s.
 ——— *Sources of Australian history: selected and ed. by M. Clark.* Lond., Oxford Univ. Press, 1957. 9s. 6d. (World's classics, 558.)
 CRAWFORD, R. M. *Australia.* Lond., Hutchinson's Univ. Library, 1952. 8s. 6d.
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History—continued.

STANDARD WORKS IN PRINT—continued.

- FITZPATRICK, B. C. *British Empire in Australia: an economic history 1834-1939* (2nd ed.). Melb., Melbourne Univ. Press, 1949. 17s. 6d.
- GREENWOOD, G., ed. *Australia: a social and political history*. Syd., Angus and Robertson, 1955. 45s.
- HISTORICAL RECORDS OF AUSTRALIA: (ed. by J. F. Watson). Syd., National Library of Australia, 1914 to 1925. 65s. *per v.* 34v. have so far appeared. (Publication has been suspended since 1925.)
- HISTORICAL STUDIES: Australia and New Zealand. Melb., Melbourne Univ. Press, 1940 to date. Semi-annual. 21s. *per annum*.
- MURTAGH, J. G. *Australia: the Catholic chapter*: (2nd ed.). Syd., Angus and Robertson, 1959. 35s.
- NADIEL, G. H. *Australia's colonial culture: ideas, men and institutions in mid-nineteenth century eastern Australia*: foreword by C. Hartley Grattan. Melb., Cheshire, 1957. 30s.
- O'BRIEN, E. M. *The foundation of Australia (1786-1800): a study in English criminal practice and penal colonization in the eighteenth century*: (2nd ed.). Syd., Angus and Robertson, 1950. 25s.
- SCOTT, SIR ERNEST. *A short history of Australia* (8th ed.). Melb., Oxford Univ. Press, 1950. 14s. 6d.
- SHANN, E. O. G. *An economic history of Australia*. Melb., Georgian House, 1948. 18s.
- SHAW, A. G. L. *Economic development of Australia* (4th ed.). Melb., Longmans, Green, 1955. 18s. 9d.
- The story of Australia. Lond., Faber, 1955. 18s. 9d.

RECENT PUBLICATIONS OF INTEREST.

- ALLEN, H. C. *Bush and backwoods: a comparison of the frontier in Australia and the United States*. East Lansing, Michigan State Univ. Press, 1959. 31s. 6d.
- BATESON, C. *The convict ships 1787-1868*. Glasgow, Brown, 1959. 36s.
- BROWN, P. L. *Clyde Company papers: v. 3, 1841-45*. Lond., Oxford Univ. Press, 1958. 68s. (Records of a pastoral company formed in 1836, to operate in the newly settled district of Port Phillip, now Victoria.)
- CILENTO, SIR RAPHAEL W., ed. *Triumph in the tropics: an historical sketch of Queensland*. Brisb., Smith and Paterson, 1959. 31s.
- COOK, J. *The explorations of Captain James Cook in the Pacific as told by selections of his own journals, 1768-1779*: ed. by A. Grenfell Price: illus. by Geoffrey C. Ingleton. Melb., Georgian House, 1958. 70s.
- CRAWFORD, R. M. *An Australian perspective*. Melb., Melbourne Univ. Press, 1960. 10s. 6d.
- CROWLEY, F. K. *Australia's western third: a history of Western Australia from the first settlement to modern times*. Lond., Macmillan, in association with the University of Western Australia Press, 1960. 42s.
- A short history of Western Australia. Melb., Macmillan, 1959. 10s. 6d.
- DALEY, C. *The story of Gippsland*. Melb., Whitcombe and Tombs for the Gippsland Municipalities Association, 1960.
- EWERS, J. K. *Bruce Rock: the story of a district*. Bruce Rock, W.A., Bruce Rock District Road Board, 1959. 40s.
- FITZPATRICK, KATHLEEN. *Australian explorers: a selection from their writings with an introduction*. Lond., Oxford Univ. Press, 1958. 9s. 6d.
- GREENWOOD, G., ed. *Brisbane 1859-1959: a history of local government*. Bris., Oswald L. Ziegler for the Council of the City of Brisbane, 1959. 140s.
- HASLUCK, ALEXANDRA. *Unwilling emigrants: a study of the convict period in Western Australia*. Melb., Oxford Univ. Press, 1959. 32s. 6d.
- JERVIS, J. *The history of Woollahra: a record of events from 1788 to 1960 and a centenary of local government*: prepared by James Jervis and ed. by Vince Kelly. Syd., Municipal Council of Woollahra, 1960. 35s.
- Orange 1860-1960: to commemorate the first hundred years of local government of Orange in the state of New South Wales: by James Jervis and others: ed. by Oswald and Alan Ziegler. Orange, N.S.W., City Council, 1960. 25s.
- MACMILLAN, D. S. *The debtor's war: Scottish capitalists and the economic crisis in Australia, 1841-1846*. Melb., Cheshire, 1960. 30s. (An account of the usury issue during the Australian economic crisis of the 1840's based largely on material preserved in the archives of the Scottish Australian Company.)
- MOYE, D. G., ed. *Historic Kiandra: a guide to the history of the district*. Cooma, Cooma-Monaro Historical Society, 1959. 7s. 6d.
- POWELL, EVE. *Mary of Maranoa: tales of Australian pioneer women*. Syd., F. H. Johnston, 1959. 32s. 6d.
- RONALD, R. B. *The Riverina: people and properties*: introd. by Hugh S. Robertson. Melb., Cheshire, 1960. 42s.
- ROWNTREE, AMY. *Early settlement of Sandy Bay*. Hobart, Mercury Press, 1959. 2s.
- SHAW, A. G. L. *An introduction to Australian history*: by A. G. L. Shaw and H. D. Nicholson. Syd., Angus and Robertson, 1959. 18s. 6d.
- SMITH, P. R. *The story of Australia*: illus. by B. Biro. Lond., Benn, 1959. 15s.
- WARD, J. M. *Earl Grey and the Australian colonies, 1846-1857: a study of self-government and self-interest*. Melb., Melbourne Univ. Press, 1958. 63s.

Military and Naval History.

STANDARD WORKS IN PRINT.

- AUSTRALIA—Army, Department of—*Public Relations Directorate*. *The Australian army at war: an official record of service in two hemispheres, 1939-45*. Melb., 1947.
- AUSTRALIA IN THE WAR OF 1939-45: (ed. by Gavin Long). Canb., Australian War Memorial, 1952. to date. Various prices. (*Contents*: Series 1 (Army), 5 v. have so far appeared; Series 2 (Navy), 1 v. has so far appeared; Series 3 (Air), 2 v. have so far appeared; Series 4 (Civil), 3 v. have so far appeared; Series 5 (Medical), 3 v. have so far appeared.)
- AUSTRALIAN WAR MEMORIAL, Canberra. *Pictorial history of Australia at war, 1939-45*: ed. for the Board of Management by Norman Bartlett (and Charles Meeking). Canb., 1958. 210s. 5 v.

Military and Naval History—continued.

STANDARD WORKS IN PRINT—continued.

- AUSTRALIAN WAR MEMORIAL, *Canberra*. With the Australians in Korea: ed. . . . by Norman Bartlett, *Canb.*, 1954. 25s.
 BEAN, C. E. W. *Anzac to Amiens: a shorter history of the Australian fighting services in the first world war.* *Canb.* Australian War Memorial, 1946. 25s.
 LEE, J. E. *Dunrobin: the Royal Military College of Australia 1911-1946.* *Canb.*, Australian War Memorial, 1952. 30s.
 NORTON, C. F. *Fighting ships of Australia and New Zealand: foreword by Vice-Admiral Sir John Collins.* *Syd.*, Angus & Robertson, 1953. 7s. 6d.
 OFFICIAL HISTORY OF AUSTRALIA IN THE WAR OF 1914-18: (ed. by C. E. W. Bean) 12 v. *Canb.*, Australian War Memorial, 1921-1942. 21s. *per v.* v. 8, 9, 10, 11, 18s. v. 1, 3, 12, *o.p.*
 OFFICIAL HISTORY OF THE AUSTRALIAN ARMY MEDICAL SERVICES IN THE WAR OF 1914-1918: (ed. by Col. A. G. Butler): 3 v. *Canb.*, Australian War Memorial, 1930-43. 21s. *per v.*

RECENT PUBLICATIONS OF INTEREST:

- ATTWILL, K. *The Singapore story.* *London*, Frederick Muller, 1959. 18s.
 BEAN, C. E. W. *Two men I knew: William Bridges and Brudenell White.* *Syd.*, Angus and Robertson, 1957. 25s.
 BURNS, J. *The brown and blue diamond at war: the story of the 2/27th Battalion A.I.F.* *Adel.*, 2/27 Battalion Ex-Servicemen's Association, 1960.
 GLENN, J. G. *Tobruk to Tarakan: the story of the 2/48th Battalion A.I.F.* *Adel.*, Rigby, 1960. 30s.
 LAFFIN, J. *Digger: the story of the Australian soldier.* *London*, Cassell, 1959. 18s.
 MCCARTHY, D. *South west Pacific area: first year.* *Canb.*, Australian War Memorial, 1959. (*Australia in the war of 1939-45: series 1 (Army), v. 5.*) 30s.
 MCKIE, R. C. H. *The heroes.* *Syd.*, Angus and Robertson, 1960. 25s. (*An account of two marine raids by Australians on Japanese held territory in 1943 and 1944.*)
 OWEN, F. *The fall of Singapore.* *London*, Joseph, 1960. 21s.
 PAULL, R. A. *Retreat from Kokoda.* *Melb.*, Heinemann, 1958. 30s.
 RYAN, P. A. *Fear drive my feet.* *Syd.*, Angus and Robertson, 1959. 20s. (*A personal narrative of the New Guinea campaign.*)
 SLIM, SIR WILLIAM. *Unofficial history.* *London*, Cassell, 1959. 27s. 3d. (*Personal reminiscences of the two world wars, by Field Marshal Sir William Slim, who was Governor-General of Australia from 1953 to 1960.*)
 SOUTHALL, I. *Softly tread the brave.* *Syd.*, Angus and Robertson, 1960. 27s. 6d. (*An account of the exploits of two Australian bomb disposal officers during the World War II.*)
 TSUI, M. *Singapore, the Japanese version: with an introduction by Lieutenant-General H. Gordon Bennett.* *Syd.*, Ure Smith, 1960. 35s.

Religion.

RECENT PUBLICATIONS OF INTEREST.

- ALEXANDER, F., ed. *Four bishops and their See, Perth, Western Australia, 1857-1957.* *Nedlands, W.A.*, Univ. of Western Australia Press, 1957. 22s. 6d.
 BABBAGE, S. B. *Light beneath the cross: the story of Billy Graham's crusade in Australia.* *Melb.*, World's Work Ltd., 1960. 17s. 6d.
 GOLDMAN, L. M. *The Jews in Victoria in the nineteenth century.* *Melb.*, Author, 1954. 63s.
 JEFFREYS, ETHNIE. *The disturber: compiled by Ethnie Jeffreys and Ted Buckle.* *Canb.*, Parish of All Saints', 1960. (*Written to commemorate the twenty-six years episcopacy of Ernest Henry Burgmann, Bishop of Canberra and Goulburn.*)
 JOHNSTON, H. A. *Plain talks on the Catholic religion: (2nd ed.).* *Syd.*, Angus and Robertson, 1959. 17s. 6d.
 JOSE, G. H. *The Church of England in South Australia 1836-1905.* *Adel.*, Church Office, 1937-1955. 15s. 3 v.
 NASH, L. L. *Forward flows the time: (the story of) Ridley College, Melbourne.* *Melb.*, G.B. Publications, 1960. 24s. 6d. (*Ridley College is a training institution for Church of England clergy.*)
 ROWLAND, E. C. *A short story of the Australian Church.* *Syd.*, Anglican Truth Society, 1960. 3s.
 ———. *The tropics for Christ: being a history of the Diocese of North Queensland.* *Townsville*, Diocese of North Queensland, 1960. 27s. 6d.
 TAYLOR, H. R. *The history of Churches of Christ in South Australia, 1846-1959.* *Adel.*, Churches of Christ Evangelistic Union, 1959. 12s. 6d.
 WALKER, A. *Heritage without end: illus. by Frank Whitmore (2nd ed.).* *Melb.*, General Conference Literature and Publications Committee of the Methodist Church of Australasia, 1953. 3s. 6d. (*An historical account of the Methodist Church in Australia. The author is the Superintendent of the Central Methodist Mission, Sydney, and is a leading figure in the Methodist Church in Australia.*)
 ———. *A new mind for a new age.* *London*, Epworth, 1959. 10s. 6d. (*Essays on the role of a Christian in the modern world.*)

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- PALMER, E. VANCE. *National portraits (3rd ed.).* *Melb.*, Melbourne Univ. Press, 1954. 15s.
 SERLE, P. *Dictionary of Australian biography.* 2 v. *Syd.*, Angus and Robertson, 1949. 105s.
 WHO'S WHO IN AUSTRALIA. *Melb.*, Herald Press, 1906 to date. 105s. *per issue.* Latest issue: 16th, 1959.

See also biographical articles in the Australian Encyclopaedia.

Biography—continued.

RECENT PUBLICATIONS OF INTEREST.

- ALLEN, G. W. D., *ed.* Early Georgian: extracts from the journal of George Allen (1800–1877). Syd., Angus and Robertson, 1958. 25s. (George Allen was the first solicitor to receive his professional training in New South Wales.)
- ANGLISS, JACOBENA V. (*Lady*). Sir William Angliss: an intimate biography. Melb., Printed by Premier Printing Co., 1960. (Angliss was the head of a vast chain of interests in the meat industry. As businessman, philanthropist and a member of the Legislative Council he was a well-known public figure in Victoria.)
- BAINTON, HELEN. Remembered on waking: Edgar L. Bainton. Syd., Currawong, 1960. 21s. (Written by his daughter, this biography of the well-known Australian musician and former Director of Sydney Conservatorium, traces his life from early childhood in England to his death in 1956.)
- BROCKMAN, G. DRAKE. The turning wheel. Perth, Paterson Brokensha, 1960. 30s. (Personal record of a member of one of the best known Western Australian families. The author is a distinguished civil engineer and soldier of two World Wars.)
- BROOKES, Dame MABEL. St. Helena story. Lond., Heinemann, 1960. 30s. (An intimate study of Napoleon in his island exile. The author is a great granddaughter of William Balcombe, agent for the East India Company at St. Helena during the period of Napoleon's residence there.)
- CHISHOLM, A. R. Men were my milestones: Australian portraits and sketches. Melb., Melbourne Univ. Press, 1958. 27s. 6d. (These reminiscences of the recently retired Professor of French at Melbourne University relate to the literary and educational scene in Australia.)
- COPLAND, Sir DOUGLAS B. Giblin: the scholar and the man: papers in memory of Lyndhurst Falkiner Giblin. Melb., Cheshire, 1960. 50s.
- DURACK, MARY. Kings in grass castles. Lond., Constable, 1959. (A family history of the Duracks, pioneers in the interior of Queensland and Western Australia.)
- DUTTON, G. P. H. Founder of a city: the life of Colonel William Light: first surveyor-general of the colony of South Australia: founder of Adelaide 1786–1839. Melb., Cheshire, 1960. 42s.
- FURNEAUX, R. Tobias Furneaux: circumnavigator. Lond., Cassell, 1960. 30s.
- HANNAN, A. J. The life of Chief Justice Way: a biography of the Right Honourable Sir Samuel Way, Bart., P.C., D.C.L., LL.D., for many years Lieutenant-Governor and Chief Justice of South Australia, and Chancellor of the University of Adelaide. Syd., Angus and Robertson, 1960. 42s.
- HARNEY, W. E. Content to lie in the sun. Lond., Hale, 1958. (The author, for many years a well known identity in the Northern Territory, is now caretaker of Ayers Rock, Central Australia.)
- HETHERINGTON, J. Australians: nine profiles. Melb., Cheshire, 1960. 30s. (Short biographies of some noteworthy Australians, the subjects being selected to illustrate national character.)
- IDRIESS, I. L. Flynn of the Inland (new ed.). Syd., Angus and Robertson, 1956. 25s. (Biography of the founder of the Australian Inland Mission and the Flying Doctor Service.)
- LA NAUZE, J. A. Alfred Deakin: two lectures. Brisb., Univ. of Queensland Press, 1960. 3s. (John Murtagh Macrossan memorial lectures, 1958.)
- LINDSAY, J. The roaring twenties: literary life in Sydney, New South Wales, in the years 1921–6. Lond., Bodley Head, 1960. 25s. (A sequel to his *Life rarely tells*. The author is the son of artist and writer Norman Lindsay.)
- LOANE, M. L. Archbishop Mowll: the biography of Howard West Kilvington Mowll, Archbishop of Sydney and Primate of Australia. Lond., Hodder, 1960. 21s.
- LOMAS, G. The will to win: the story of Sir Frank Beaurepaire. Melb., Heinemann, 1960. 30s. (Sir Frank Beaurepaire first distinguished himself as a swimmer of Olympic standard, and later as Lord Mayor of Melbourne, and as a member of the Victorian State Parliament.)
- MARTIN, A. W. Members of the Legislative Assembly of New South Wales, 1856–1901: biographical notes by A. W. Martin and P. Wardle. Canb., Australian National University, 1959. 22s. 6d. (Australian National University. Social science monographs, 16.)
- MAWSON, FRANCISCA A. (*Lady*). A vision of steel: the life of G. D. Delprat, general manager of B.H.P. 1898–1921: by Paquita Mawson: foreword by R. G. Menzies and an introd. by Essington Lewis: epilogue by N. R. Wills. Melb., Cheshire, 1958. 42s.
- MICKLE, A. D. My lady life: a writer's story. Melb., Cheshire, 1960. 21s. (The author's published works cover many forms and subjects: essays, fiction, poetry, travel and humour.)
- MOOREHEAD, A. M. Churchill, a pictorial biography. Lond., Thames and Hudson, 1960. 25s.
- MURRAY, G. G. A. An unfinished autobiography with contributions by his friends: ed. by Jean Smith and Arnold Toynbee. Lond., Allen and Unwin, 1960. 41s. 6d. (This work deals with both the Australian classical scholar Gilbert Murray and his father Terence Murray.)
- PAPPE, H. O. John Stuart Mill and the Harriet Taylor myth. Melb., Melbourne Univ. Press on behalf of the Australian National University, 1960. 9s. 6d.
- PEARL, C. Always morning: the life of Richard Henry ("Orion") Horne. Melb., Cheshire, 1960. 40s. (The colourful story of an English poet who settled in Australia during the gold rush period.)
- RUSSELL, W. B. There goes a man: the biography of Sir Stanley G. Savage. Melb., Longmans, 1959. 25s. (Savage was a soldier of both World Wars and a founder of the Legacy Club.)
- SPENCER, A. H. The hill of content: books, art, music, people. Syd., Angus and Robertson, 1959. 30s.
- SPENCER, MARGARET. Doctor's wife in New Guinea. Syd., Angus and Robertson, 1959. 22s. 6d.
- WHYTE, W. F. William Morris Hughes: his life and times. Syd., Angus and Robertson, 1957. 50s. (W. M. Hughes, one of the most widely known politicians in the history of the Commonwealth sat in the Federal Parliament from 1901 to the time of his death in 1952. He was Prime Minister during World War I.)
- WRIGHT, JUDITH A. The generations of men: illus. by Alison Forbes. Melb., Oxford Univ. Press, 1959. 45s. (Family history of the well-known Australian poet.)

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- ALEXANDER, F. Adult education in Australia: an historian's point of view. Melb., Cheshire, 1959. 6s. 6d.
- AUSTRALIA—Committee on Australian Universities. Report. Canb., Govt. Pr., 1957.
- Commonwealth Office of Education. Higher education in Australia: a directory of courses (2nd ed.). Syd., 1959. gratis. Processed.

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- AUSTRALIAN COUNCIL FOR EDUCATIONAL RESEARCH. The early years: a summary of an enquiry into age of admission, classification and promotion practices in Australian primary schools. Melb., 1957. 1s.
- Review of education in Australia 1948–1954: ed. by R. M. McDonnell, W. C. Radford and P. M. Staurenghi. Melb., 1956. 40s.
- AUSTRALIAN LIBRARY JOURNAL. Syd., Library Association of Australia, 1951 to date. Quarterly. 20s. per annum.
- BUTTS, R. F. Assumptions underlying Australian education. Melb., Australian Council for Educational Research, 1955. 12s.
- COLE, P. R., ed. The rural school in Australia. Melb., Melbourne Univ. Press, 1937. 10s.
- FOGARTY, R. Catholic education in Australia, 1806–1950. Melb., Melbourne Univ. Press, 1959. 100s. 2v.
- RADFORD, W. C., comp. The non-government schools of Australia: a descriptive and statistical account. Melb., Melbourne Univ. Press, for Australian Council for Educational Research, 1953. 21s.
- RAYNER, S. A. Correspondence education in Australia and New Zealand. Melb., Melbourne Univ. Press, 1949. 10s.

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- AUSTRALIA—Universities Commission. Report on Australian universities, 1958–63. Canb., 1960.
- AUSTRALIAN COLLEGE OF EDUCATION. Founder's convention: 15th–18th May, 1959. Melb., Cheshire, 1960. 12s. 6d.
- Educational values in a democracy: papers delivered at the first annual meeting of the College, Sydney, 13th–16th May, 1960. Melb., Cheshire, 1960. 12s. 6d.
- AUSTRALIAN UNESCO SEMINAR ON DRAMA IN EDUCATION—Sydney, 16th–22nd August, 1958. Report of the . . . seminar. Syd., Australian National Advisory Committee, 1960.
- DIMMACK, M. Modern art education in the primary school. Melb., Macmillan, 1958. 42s.
- FRENCH, E. L. Melbourne studies in education, 1958–59. Melb., Melbourne Univ. Press, 1960. 30s.
- GORDON, L. M. J. Improving the program of citizenship education through the social studies in New South Wales schools. Ann Arbor, Mich., University Microfilms, 1958. 817.
- HARDIE, C. D., ed. Science in Australian primary schools: (contributions by C. D. Hardie and others). Melb., Melbourne Univ. Press, 1957. 21s.
- MARSHALL, MARY J., ed. Union list of higher degree theses in Australian university libraries. Hobart, University of Tasmania Library, 1959. 20s.
- MELBOURNE. University—Appointments Board. Problems of transition: a conference attended by secondary school representatives and members of the University staff to consider problems which confront secondary school students entering the University. Melb., Melbourne Univ. Press, 1960. gratis.
- PRICE, A. G. The humanities in Australia: a survey with special reference to the universities. Syd., Angus and Robertson, for the Australian Humanities Research Council, 1959. 42s.
- REID, M. O. The ladies came to stay: a study of the education of girls at the Presbyterian Ladies College, Melbourne, 1875–1960. Melb., The College, 1960.
- ROWE, A. P. If the gown fits. Melb., Melbourne Univ. Press, 1960. 30s. (Essays on university administration, with particular reference to Australia. The author was Vice-chancellor of Adelaide University from 1948 to 1958.)
- VICTORIA—Education Department—Committee on State Education in Victoria. Report. Melb., 1960.
- VICTORIAN INSTITUTE OF EDUCATIONAL RESEARCH. Primary education today: five lectures given at a series arranged by the Institute, 1958. Melb., 1960. 6s.

*Constitution and Law.**STANDARD WORKS IN PRINT.*

- AUSTRALIA—Laws, Statutes, etc. The Acts of the Parliament of the Commonwealth of Australia passed from 1901 to 1950: to which is prefixed the Commonwealth of Australia Constitution Act, as altered to 31st December, 1950, with notes of cases, tables and indexes. Syd., Law Book Co., 1952–1955. 420s. 6 v. (Acts passed since 1950 are included in annual supplementary volume.)
- Parliament. An introduction to the Australian Federal Parliament: prepared under instructions from the . . . President of the Senate. Syd., Angus and Robertson, 1959. 30s.
- Royal Commission on the Constitution of the Commonwealth. Report. Canb., 1929. 10s. 6d.
- AUSTRALIAN DIGEST, 1825–1954: being a digest of the reported decisions of the Australian Courts and of Australian appeals to the Privy Council: with table of cases, ed. by B. Sugerman and others: supplements, 1934 to date. Syd., Law Book Co., 1934 to date.
- AUSTRALIAN LAW JOURNAL. Syd., Law Book Co., 1927 to date. 95s. per annum.
- COMMONWEALTH LAW REPORTS. Syd., Law Book Co., 1903 to date. Annual. 80s.
- CRISP, L. F. Parliamentary government of the Commonwealth of Australia (2nd ed.). Lond., Longmans, Green, 1954. 21s.
- NICHOLAS, H. S. The Australian constitution . . . an analysis (2nd ed.). Syd., Law Book Co., 1952. 70s.
- PATON, Sir GEORGE W., ed. The Commonwealth of Australia: the development of its laws and constitution. Lond., Stevens, 1952. 55s. (The British Commonwealth: its laws and constitution: v.2.)
- SAWER, G. Australian government to-day (6th ed.). Melb., Melbourne Univ. Press, 1958. 4s. 6d.
- Cases on the constitution of the Commonwealth of Australia: selected and annotated by Geoffrey Sawer (2nd ed.). Syd., Law Book Co., 1957. 70s.
- WYNES, W. A. Legislative, executive and judicial powers in Australia: being a treatise on the distribution of legislative, executive and judicial powers of Commonwealth and States under the Commonwealth of Australia Constitution Act (2nd ed.). Syd., Law Book Co., 1956. 95s.

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- AUSTRALIA—*Parliament—Joint Committee on Constitutional Review*. Report. Canb., Govt. Pr., 1959. 16s. 6d.
- AUSTRALIAN ENCYCLOPAEDIA OF FORMS AND PRECEDENTS OTHER THAN COURT FORMS. Syd., Butterworth, 1955 to date. 97s. 6d. per v. 11 v. and three supplements have so far been issued.
- BAALMAN, J. Outline of law in Australia (2nd ed.). Syd., Law Book Co., 1955. 25s.
- BAILEY, Sir KENNETH. Australia and the law of the sea. Melb., Australian Institute of International Affairs, 1960. 2s. (Roy Milne memorial lecture, 1959.)
- COWEN, Z. Federal jurisdiction in Australia. Melb., Oxford Univ. Press, 1959. 40s.
- DAVIS, S. R., ed. The government of the Australian states. Melb., Longmans, 1960. 70s.
- DAWES, E. N. Australian proprietary and private companies: law and management. Syd., Butterworth, 1955. 52s. 6d.
- FLEMING, J. G. The law of torts. Syd., Law Book Co., 1957. 84s.
- FOENANDER, O. de R. Industrial conciliation and arbitration in Australia. Syd., Law Book Co., 1959. 55s.
- FORD, H. A. J. Cases on trusts: selected and ed. by H. A. J. Ford. Syd., Law Book Co., 1959. 95s.
- GUNN, J. A. L. Commonwealth income tax law and practice: by J. A. L. Gunn in collaboration with O. E. Berger, R. E. O'Neill and M. Maas: 5th ed. Syd., Butterworth, 1957. 168s.
- Guide to Commonwealth income tax: by J. A. L. Gunn and R. E. O'Neill: 9th ed. Syd., Butterworth, 1959. 42s.
- HARRISON, W. N. L. Cases on land law: selected and ed. by W. N. Harrison. Syd., Law Book Co., 1958. 95s. (Published at the request of the Australian Universities Law Schools Association.)
- JOSKE, P. E. The law of partnership in Australia and New Zealand. Syd., Butterworth, 1957. 32s. 6d.
- KERRY, C. W. Share register practice. Syd., Law Book Co., 1960. 70s.
- LAW INSTITUTE OF VICTORIA—*Centenary Year Council*. The Law Institute of Victoria, 1859–1959. Melb., 1959. 21s.
- MAZENGARB, O. C. The law and practice relating to actions for negligence on the highway: 3rd ed. Syd., Butterworth, 1957. 75s.
- NOLAN, J. R. W. Nolan and Cohen's industrial laws annotated: bk. 1: federal law (2nd ed.) by C. P. Mills. Syd., Butterworth, 1957. 105s.
- ODGERS, J. R. Australian senate practice (2nd ed.). Canb., Govt. Pr., 1959. 18s. 6d.
- OLIVER, L. L. Law of costs: with precedents of bills of costs in all jurisdictions. Melb., Law Book Co., 1960.
- PORTUS, J. H. The development of Australian trade union law. Melb., Melbourne Univ. Press, 1958. 57s. 6d.
- RUOFF, T. B. F. An Englishman looks at the Torrens system (being some provocative essays on the operation of the system after one hundred years). Syd., Law Book Co., 1957. 25s.
- STONE, J. Aggression and world order: a critique of United Nations theories of aggression. Syd., Maitland Publications, 1958. 40s.
- Law and policy in the quest for survival: six lectures . . . broadcast by the A.B.C. in November and December, 1960. Syd., Australian Broadcasting Commission, 1960. (Lectures given in a series, arranged by the A.B.C. in which a prominent member of the Australian community is invited to present the results of his work and thinking on one of society's major problems.)
- SYKES, E. I. Strike law in Australia. Syd., Law Book Co., 1960. 63s.
- YORSTON, R. K. Australian mercantile law: by R. K. Yorston and E. E. Fortescue: 9th ed. Syd., Law Book Co., 1957. 45s.

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- AUSTRALIA—*Prime Minister's Department*. The federal guide: a handbook of the organization and functions of Commonwealth government departments: August, 1958. Canb., 1958. *gratis*.
- Same*: supplement . . . an alphabetical directory: October, 1959. Canb., 1959. 4s.
- CAMPBELL, W. J. Australian state public finance. Syd., Law Book Co., 1954. 50s.
- FRIEDMANN, W. G. Principles of Australian administrative law. Melb., Melbourne Univ. Press, 1950. 12s. 6d.
- MILLER, J. D. B. Australian government and politics: an introductory survey. Lond., Duckworth, 1954. 15s.
- PUBLIC ADMINISTRATION. Syd., Institute of Public Administration, 1939 to date. Quarterly. 7s. 6d. *per issue*.

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- AUSTRALIA—*Parliament—Committee of Inquiry into Public Service Recruitment*. Report. Canb., Govt. Pr. 1958. (Sir Richard Boyer, *Chairman*.)
- BLAIR, L. C. L. The Commonwealth Public Service. Melb., Melbourne Univ. Press, 1958. 9s. 6d.
- HANSON, E. J. Australian Commonwealth Grants Commission: a quarter century of fiscal judgment. Toronto, Canadian Tax Foundation, 1960. 82.
- HARVARD UNIVERSITY—*International Program in Taxation*. Taxation in Australia: prepared by Harvard Law School, International Program in Taxation in consultation with the United Nations Secretariat. Boston, Little, Brown, 1958. \$10. (World tax series.) (Joint work of Walter W. Brudno and a research group in the Faculty of Law of the University of Sydney under the direction of K. O. Shatwell.)
- JONES, E. H. Principles and practice of industrial and commercial organization in Australia. Syd., Law Book Co., 1957. 32s. 6d.
- O'BRIEN, G. M. The Australian police forces. Melb., Oxford Univ. Press, 1960. 37s. 6d.
- RATCHFORD, B. U. Public expenditures in Australia, Durham, N.C. Duke Univ. Press, 1959. \$7.50. (Duke University Commonwealth Studies Center. Publication No. 11.)
- VICTORIAN STATE PARLIAMENTARY AND CIVIC GUIDE. Melb., Eric White Associates, 1960. 210s.
- WHITLAM, H. F. E. Sir Robert Garran and leadership in public service. Canb., Royal Institute of Public Administration, Australian Capital Territory Group, 1960. *gratis*.

*Industria! Relations.***STANDARD WORKS IN PRINT.**

- FOENANDER, O. DE R. *Better employment relations and other essays in labour.* Syd., Law Book Co., 1954. 30s.
 PERLMAN, M. *Judges in industry: a study of labour arbitration in Australia.* Melb., Melbourne Univ. Press, 1954. 37s. 6d.
 WALKER, K. F. *Industrial relations in Australia.* Camb., Mass., Harvard Univ. Press, 1956. 73s. 6d. (Wertheim publications in industrial relations.)

RECENT PUBLICATIONS OF INTEREST.

- AUSTRALIA—*Labour and National Service, Department of.* Wage incentives in Australian industry: principles and cases. Canb., Govt. Pr., 1959. 10s.
 AUSTRALIAN INSTITUTE OF POLITICAL SCIENCE—*25th Summer School, Canberra, Jan., 1959.* Trade unions in Australia. Syd., Angus and Robertson, 1959. 25s.

*Political History.***STANDARD WORKS IN PRINT.**

- AUSTRALIAN INSTITUTE OF POLITICAL SCIENCE—*Victorian Group—Winter forum, Melbourne, 1953.* The Australian political party system: by S. R. Davis (and others). Syd., Angus and Robertson, 1954. 12s. 6d.
 AUSTRALIAN JOURNAL OF POLITICS AND HISTORY. Brisb., Univ. of Queensland Press, 1955 to date. Three issues a year. 12s. 6d. *per issue.*
 CRISP, L. F. *The Australian federal labour party, 1901–1951.* Lond., Longmans, Green, 1955. 25s.
 DEAKIN, Rt. Hon. A. *The federal story: the inner history of the federal cause: foreword by the Rt. Hon. W. A. Watt: ed. by Herbert Brookes.* Melb., Robertson and Mullens, 1944. 12s. 6d.
 EGGLESTON, Sir FREDERIC W. *Reflections of an Australian liberal.* Melb., Cheshire for the Australian National University, 1952. 27s. 6d.
 EVATT, Rt. Hon. H. V. *Australian labour leader: the story of W. A. Holman and the labour movement (3rd, abridged, ed.).* Syd., Angus and Robertson, 1954. 30s.
 NATION: an independent journal of opinion. Syd., National Review Company, 1958 to date. Fortnightly. 1s. 6d. *per issue.*
 PARLIAMENTARY HANDBOOK OF THE COMMONWEALTH OF AUSTRALIA. Canb., National Library, 1915. to date. 42s. *per issue.* (Latest issue: 13th, 1959.)

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- BARCAN, A. *The socialist left in Australia, 1949–1959.* Syd., Australian Political Studies Association, 1960.
 BARRETT, R. H. *Promises and performances in Australian politics.* N.Y., Institute of Pacific Relations, 1959. \$2.50. (A survey covering the period 1928–1959.)
 DAVIES, A. F. *Australian democracy: an introduction to the political system.* Melb., Longmans, Green, 1958. 19s. 6d.
 EBBELS, R. N., *comp.* *Australian labor movement, 1850–1907: extracts from contemporary documents: ed. by L. G. Churchward and with a memoir of the late Robert Noel Ebbels by C. M. H. Clark.* Syd., Australasian Book Society, 1960. 25s.
 ELLIS, U. R. *The Country Party: a political and social history of the party in New South Wales.* Melb., Cheshire, 1958. 32s. 6d.
 GARRAN, Sir ROBERT R. *Prosper the Commonwealth.* Syd., Angus and Robertson (1958). 50s. (Sir Robert Garran entered the Federal Public Service in 1901, after taking a leading part in the movement towards Federation. He was Solicitor-General from 1916 to 1932.)
 GOLLAN, R. *Radical and working class politics: a study of eastern Australia 1850–1910.* Melb., Melbourne Univ. Press in association with the Australian National University, 1960. 35s.
 HOWATT, G. *Fixing responsibility for governing when no party has an absolute majority in Parliament.* Hobart, Govt. Pr., 1960. *gratis.*
 MAYER, H., *ed.* *Catholicism and the free society.* Melb., Cheshire, 1960. 25s.
 RAWSON, D. W. *Politics in Eden-Monaro: by D. W. Rawson and Susan Holtzinger.* Lond., Heinemann for Australian National University, 1958. 22s. 6d. (Australian National University. Social Science monographs, 11.)
 SAWER, G. *Australian federal politics and law 1901–1929.* Melb., Melbourne Univ. Press, 1956. 57s. 6d.
 TRUMAN, T. C. *Catholic action and politics.* Melb., Georgian House, 1959. 35s.
 WHITTINGTON, D. *The house will divide: a review of Australian federal politics in the past twenty-five years.* Melb., Georgian House, 1956. 21s.
 ——— *Ring the bells: a dictionary of Australian federal politics.* Melb., Georgian House, 1956. 21s.

*International Relations.***STANDARD WORKS IN PRINT.**

- AUSTRALIAN OUTLOOK (INCORPORATING THE AUSTRAL-ASIATIC BULLETIN). Syd., Australian Institute of International Affairs, 1947 to date. Three issues a year. 7s. *per issue.*
 CURRENT NOTES ON INTERNATIONAL AFFAIRS. Canb., Dept. of External Affairs, 1936 to date. Monthly. *gratis.*
 EGGLESTON, Sir FREDERIC W. *Reflections on Australian foreign policy (ed. by Norman Harper: biographical sketch by Tristan Buesst.* Melb., Cheshire for the Australian Institute of International Affairs, 1957. 30s.
 GREENWOOD, G., *ed.* *Australia in world affairs, 1950–55 (ed. by Gordon Greenwood and Norman Harper).* Melb., Cheshire, 1957. 45s.
 NICHOLSON, D. F. *Australia's trade relations: an outline history of Australia's overseas trading arrangements.* Melb., Cheshire, 1955. 42s.

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- ALBINSKI, H. S. Australia's search for regional security in South-East Asia. Ann Arbor, Mich., University Microfilms, 1959. \$22.80.
- ALEXANDER, F. Canadians and foreign policy: the record of an independent investigation. Melb., Cheshire, 1960. 30s. The author, a distinguished Australian historian, was awarded a Senior Research Fellowship of the Canada Council, to enable him to write this review of Canada's external relations.)
- CALWELL, Hon. A. A. The Australian Labour Party and foreign policy. Melb., Australian Institute of International Affairs, 1959. 2s. (Roy Milne memorial lecture, 1959.)
- CLARK, C. M. H. Meeting Soviet man. Syd., Angus and Robertson, 1960. 15s. (The author, who is Professor of History at the Canberra University College, was one of three representatives of the Fellowship of Australian Writers who visited Russia late in 1958.)
- DOWNER, Hon. A. R. The influence of migration on Australian foreign policy. Syd., Australian Institute of International Affairs, 1960. (Roy Milne memorial lecture, 1960.)
- HARPER, N. D. Australia and the United Nations: by Norman Harper and David Sissons. N.Y., Manhattan Pub. Co., 1959. 35s. (National studies on international organization.) (Prepared for the Australian Institute of International Affairs and the Carnegie Endowment for International Peace.)
- HAYLEN, L. C. Chinese journey: the Republic revisited. Syd., Angus and Robertson, 1959. 27s. 6d. (The author was one of a delegation of three Australian Labor Party Parliamentarians to visit China in 1957.)
- MENZIES, Rt. Hon. R. G. Speech is of time: selected speeches and writings. Lond., Cassell, 1958. 18s. (This selection, by the Australian Prime Minister, relates largely to international affairs and the problems of contemporary society.)

Economics.

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- ARNDT, H. W. The Australian trading banks. Melb., Cheshire, 1957. 30s.
- AUSTRALIA—Census and Statistics, Commonwealth Bureau of. Quarterly Summary of Australian Statistics: 1912 to date. Canb., 1912 to date. 2s. 6d. per issue, from March, 1960, 5s. per issue.
- Treasury, Department of the. National income and expenditure: 1938–39 to 1945–46 to date. Canb., 1946 to date. Annual. 1s. 6d. per issue.
- AUSTRALIA AND NEW ZEALAND BANK LIMITED. Quarterly survey. Melb., 1951 to date. gratis.
- AUSTRALIAN ECONOMY. Canb., Treasury Dept., 1956 to date. Annual.
- AUSTRALIAN FINANCIAL REVIEW. Syd., Sydney Morning Herald, 1951 to date. Weekly. 1s. 6d. per issue.
- BANK OF NEW SOUTH WALES REVIEW. Syd., 1950 to date. Quarterly.
- DOWNING, R. I. National income and social accounts: an Australian study (5th ed.). Melb., Melbourne Univ. Press, 1960. 6s.
- ECONOMIC RECORD: the journal of the Economic Society of Australia and New Zealand. Melb., Melbourne Univ. Press, 1925 to date. Three issues a year. 13s. 6d. per issue.
- GIBLIN, L. F. The growth of a central bank: the development of the Commonwealth Bank of Australia, 1924–1945. Melb., Melbourne Univ. Press, 1951. 30s.
- GIFFORD, J. L. K. Australian banking: by J. K. Gifford, J. Vivian Wood and A. J. Reitsma (4th ed.). Brisb., Univ. of Queensland Press, 1960. 52s. 6d.
- NATIONAL BANK OF AUSTRALASIA. Monthly summary of Australian conditions. Melb., 1926 to date.
- RESERVE BANK OF AUSTRALIA. Statistical bulletin. Syd., 1937 to date. Monthly. gratis.
- TREASURY INFORMATION BULLETIN. Canb., Treasury Dept., 1956 to date.

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- ARNDT, H. W. The banks and the capital market. Brisb., Univ. of Queensland Press, 1960. 3s. (English, Scottish and Australian Bank Limited research lecture, 1958.)
- AUSTRALIA AND NEW ZEALAND BANK LIMITED—Economics and Statistical Department. Australia's continuing development: an introduction to the more important aspects of the Australian economy: (3rd ed.). Melb., Australia and New Zealand Bank Limited (and) Australia and New Zealand Savings Bank Limited, 1958. gratis.
- AUSTRALIAN COUNCIL OF SALARIED AND PROFESSIONAL ASSOCIATIONS. The Australian national income and its distribution: report of a seminar arranged by the Australian Council of Salaried and Professional Associations and the Federal Council of University Staff Associations of Australia, Sydney, 28th February and 1st March, 1959. Melb., 1960. 12s. 6d.
- COOMBS, H. C. Rural credit developments in Australia. Syd., Australian Agricultural Economics Society, 1959.
- COPLAND, Sir DOUGLAS B. The adventure of growth: essay on the Australian economy and its international setting. Melb., Cheshire, 1960. 30s.
- ed. The conflict of expansion and stability: documents relating to Australian economic policy 1945–52: ed. by D. B. Copland and R. H. Barback. Melb., Cheshire, 1957. 67s. 6d.
- CUMBERLAND COUNTY COUNCIL. Growth of population in Australia and the County of Cumberland. Syd., 1959. gratis.
- DOWNING, R. I. National superannuation: means test or contributions? Adel., University of Adelaide, 1958. gratis.
- FINANCIAL POST, newspaper. Australia: a feature report. Toronto, 1959. (Special number of the Financial Post, 28 Nov., 1959.)
- FITZGERALD, G. E. Holding companies in Australia and New Zealand: 4th ed. Syd., Butterworth, 1960. 35s.
- HAM, W. P., and Co. An analysis of Australia's 100 largest public companies. Melb., 1959. gratis.
- HILL, M. R. Housing finance in Australia, 1945–1956. Melb., Melbourne Univ. Press on behalf of the Australian National University, 1959. 45s. (A.N.U. Social science monograph, 14) 45s.
- INSTITUTE OF PUBLIC AFFAIRS, Victoria. The balance of payments and development. Melb., 1959. gratis.

Economics—continued.

RECENT PUBLICATIONS OF INTEREST—continued.

- JACKSON, Sir ROBERT G. A. The case for an international development authority. Syracuse, N.Y. Syracuse Univ. Press, 1959. 81.75. (Sir Robert Jackson, a former Australian naval officer, is chairman of the Development Commission in Ghana.)
- JARRETT, F. G. An economic survey of the reclaimed area of the lower Murray. Adel., Griffin Press, 1960. *gratis*.
- NANKERVIS, F. T. Descriptive economics: the Australian economic structure (4th ed.): Melb., Longmans, Green, 1959. 21s. 6d.
- SCOTT, W. Australia and the challenge of change: being a study of the second industrial revolution and its possible effects upon Australia. Syd., Law Book Co., 1957. 75s.
- SPATE, O. H. K. The Fijian people: economic problems and prospects: a report. Suva, Government Press, 1959.
- STURMEY, S. G. Income and economic welfare. Lond., Longmans, 1959. 21s.
- WHEELWRIGHT, E. L. Ownership and control of Australian companies. Syd., Law Book Co., 1957. 42s.
- YORSTON, R. K., ed. The Australian commercial dictionary: being definitions of accounting, business and legal words, phrases, and abbreviations: associate eds. L. Goldberg, D. M. Hocking and J. P. C. Watson (3rd ed.): Syd., Law Book Co., 1957. 27s. 6d.

Social Conditions.

RECENT PUBLICATIONS OF INTEREST.

- AUSTRALIA—Commonwealth Immigration Advisory Council—Special Committee. First report on the progress and assimilation of migrant children in Australia: presented to Australian Citizenship Convention, Canberra, February, 1960. Canb., Govt. Pr. 1960. *gratis*.
- BORRRE, W. D. The cultural integration of immigrants: a survey based upon papers and proceedings of the UNESCO Conference held in Havana, April, 1956, Paris, UNESCO, 1959. 19s.
- BURCHILL, ELIZABETH. Innaminka: foreword by Rt. Hon. R. G. Menzies. Melb., Hodder, 1960. 18s. 9d. (The story of the Australian Inland Mission Nursing Service.)
- ELKIN, A. P. Aborigines and citizenship. Syd., Association for the Protection of Native Races, 1959. 1s.
- , ed. Marriage and the family in Australia. Syd., Angus and Robertson, 1957. 27s. 6d.
- FOUNDATION FOR RESEARCH AND TREATMENT OF ALCOHOLISM. Alcoholism: a compilation of papers presented to the National Conference on Alcoholism at the University of New South Wales on 8th–12th August, 1960. Syd., 1960. 30s.
- HUDSON, H. Flynn's flying doctors: an artist's journey through the outback and the story of the flying doctor service in Australia. Melb., Heinemann, 1956. 25s.
- IMMIGRATION REFORM GROUP. Control or colour bar? a proposal for change in Australia's immigration policy. Melb., 1960. 3s.
- MACKAY, I. K. Broadcasting in Australia. Melb., Melbourne Univ. Press, 1957. 25s.
- SMITH K., A word from children. Adel., Rigby, 1960. 5s. 9d. (This work is based on a well-known radio session, in which children give their views on a variety of topics.)
- STACY, E. MARILYN. A survey of the employment problems of the physically handicapped persons in New South Wales: by E. Marilyn Stacy in collaboration with S. M. Baker. Syd., Council of Social Service of New South Wales, 1958. *gratis*.
- STOLLER, A., ed. Growing old: problems of old age in the Australian community. Melb., Cheshire, 1960. 15s.
- TENNANT, KYLIE. Speak you so gently. Lond., Gollancz, 1959. 23s. 6d. (An account of the aboriginal co-operative community at the Lockhart River Mission, Queensland.)
- THOMSON, R. J. Television crime-drama: its impact on children and adolescents. Melb., Cheshire for Department of Audio-Visual Aids, University of Melbourne, 1957. 25s.
- ZUBRZYCKI, J. Immigrants in Australia: a demographic survey based upon the 1954 census. Melb., Melbourne Univ. Press on behalf of the Australian National University, 1960. 57s. 6d.
- Immigrants in Australia: statistical supplement. Canb. (Australian National University. Social science monograph, 18.)

Industries, Resources, Trade, and Communication.

STANDARD WORKS IN PRINT.

- ANDREWS, J. Australia's resources and their utilization (4th ed.). Syd., Department of Tutorial Classes, University of Sydney, 1953. 6s.
- AUSTRALASIAN INSTITUTE OF MINING AND METALLURGY. Proceedings: new series. Melb., 1912 to date. Quarterly. 63s. ea.
- AUSTRALASIAN MANUFACTURER INDUSTRIAL ANNUAL. Syd., Manufacturer Publishing Co., 1931 to date. 40s. *per annum*.
- AUSTRALIA—Agricultural Economics, Bureau of. Quarterly review of agricultural economics. Canb., 1948 to date. *gratis*.
- AUSTRALIA—National Development, Department of. Atlas of Australian resources, Canb., 1953–1960. Contents: Rainfall, Soils, Underground water, Temperatures, Mineral deposits, Climatic regions. Major developmental projects, Agricultural production, State and local government areas, Roads and aerodromes, Railways, Physical features, Population increase and decrease (1933–47), Forest resources, Population density and distribution, Power and fuel, Distribution of stock, Vegetation regions, Drainage systems, Conservation of surface water, Health services, Educational facilities, Ports and shipping, Dominant land use, Population increase and decrease (1947–1954), Immigration, Manufacturing industry, Geology, Croplands, Mineral industry. 10s. 6d. ea., linen–stripped. 12s. 6d. ea. (These maps are accompanied by a commentary which is included in price.)
- The Supply and usage of energy in Australia. Canb., 1958. *gratis*.
- Division of Industrial Development. The structure and capacity of Australian manufacturing industries. Melb., 1952. 60s. (Distributed by Angus and Robertson.)
- AUSTRALIA TO-DAY: special number of the Australian Traveller. Melb., United Commercial Travellers Association of Australia, 1905 to date. Annual. 8s. *per issue*.
- AUSTRALIAN MINERAL INDUSTRY REVIEW. Canb., Commonwealth Bureau of Mineral Resources, Geology and Geophysics, 1948 to date. Annual. 20s. ea.

Industries, Resources, Trade and Communication—*continued.***STANDARD WORKS IN PRINT—continued.**

- BEATTIE, W. A. A survey of the beef-cattle industry of Australia. Melb., C.S.I.R.O., 1956. (C.S.I.R.O. bulletin: No. 278.)
- CALLAGHAN, A. R. The wheat industry in Australia: by A. R. Callaghan and A. J. Millington. Syd., Angus and Robertson, 1956. 63s.
- DAVIDSON, F. G. The industrialization of Australia (2nd ed.). Melb., Melbourne Univ. Press, 1960. 5s. 6d.
- EMPIRE MINING AND METALLURGY CONGRESS, *5th Australia and New Zealand*, 1952. Publications. Melb., A'asian Institute of Mining and Metallurgy, 1953.
- GREAT BRITAIN—*Commercial Relations and Exports Department*. Australia: economic and commercial conditions in Australia. Lond., H.M.S.O., 1921 to date. Latest issue: 1954. 7s. 6d.
- JAMES, W. Wine in Australia: a handbook (2nd ed.). Melb., Georgian House, 1955. 21s.
- MAJOR DEVELOPMENTAL PROJECTS: Australia. Canb., Department of National Development, 1954 to date. *gratis*.
- NEW SOUTH WALES—*Premier's Department*. . . . Preliminary survey of resources (of various regions). Syd., Govt. Pr., 1945 to date. (This series aims at covering all regions of New South Wales. So far the following have been issued:—New England; Illawarra; Lachlan; Murrumbidgee; Macquarie; Central Murray; Upper Murray; Richmond-Tweed; Clarence; Southern Tablelands; Newcastle; Monaro-South Coast; Namoi; Upper Hunter; Oxley; Mitchell.)
- PASTORAL REVIEW AND GRAZIER'S RECORD. Melb., Pastoral Review, 1891 to date. 55s. *per annum*.
- ROUGHLEY, T. C. Fish and fisheries of Australia (3rd ed.). Syd., Angus and Robertson, 1953. 55s.
- SHANNON, I. Rural industries in the Australian economy. Melb., Cheshire, 1955. 22s. 6d.
- VICTORIA—*Central Planning Authority*. Resources survey. Melb., 1948 to date. Various prices. (Surveys for the following regions have so far been published: Loddon; Mallee; Upper Goulburn; Upper Murray; Central Highlands; East Gippsland; and Corangamite.)
- WILLS, N. R., *ed.* Australia's power resources: papers read at the 1954 winter forum of the Victorian group of the Australian Institute of Political Science: by H. Messel (and others). Melb., Cheshire, 1955. 18s. 6d.

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- AERIAL AGRICULTURAL CONFERENCE, *First, Hawkesbury Agricultural College, 7th to 11th July, 1958* Proceedings. Canb., Department of Primary Industry, 1960.
- ALLBUTT, G. A brief history of some of the features of public electricity supply in Australia and the formation and development of the Electricity Supply Association of Australia, 1918-1957. Melb., Electricity Supply Association of Australia, 1958. 45s.
- ANDERSON, R. W. C. A brief history of the Associated Chambers of Manufactures of Australia. Canb., Associated Chambers of Manufactures of Australia, 1960. 7s. 6d.
- AUSTRALIA—*Agricultural Economics, Department of*. The Australian wheat-growing industry. Canb., 1960. *gratis*.
- Export Development Council*. Australian export trends and prospects. Melb., 1959. *gratis*.
- Trade, Department of*. Developments in Australian manufacturing industry. Melb., 1954-5 to date. *gratis*.
- Industries Division*. Notes on Australia's industrial capacity, March, 1958. Melb., 1958. *gratis*.
- AUSTRALIA AND NEW ZEALAND BANK LIMITED—*Economics and Statistical Department*. Establishment of industry in Australia for businessmen considering establishing or extending business in Australia. Melb., Australia and New Zealand Bank Limited (and) Australia and New Zealand Savings Bank Limited, 1958. *gratis*.
- AUSTRALIAN WOMEN'S WEEKLY. The clothing market in the next ten years. Melb., 1960. *gratis*. (Growing Australian market industry study, no. 2.)
- BELL, J. Transport and inter-world co-ordination. Melb., 1960. 210s.
- BLAINEY, G. Mines in the spinifex: the story of the Mt. Isa Mines. Syd., Angus and Robertson, 1960. 27s. 6d.
- BROGDEN, S. The history of Australian aviation. Melb., Hawthorn Press, 1960. 35s.
- BROKEN HILL PROPRIETARY COMPANY LTD. B.H.P. 75 years. Melb., 1960.
- CHISLETT, G. D'A. The Australian grazing industry: a review of factors influencing production in the sheep and wool industry. Syd., 1960. 10s.
- COMMERCIAL BANK OF AUSTRALIA LIMITED. Opportunity Australia. Melb., 1960. *gratis*.
- DRANE, N. T. The Australian dairy industry: an economic study (ed. by N. T. Drane and H. R. Edwards). Melb., Cheshire, 1960. 84s.
- HARDING, E. Uniform railway gauge. Melb., Lothian, 1958. 30s. (An account of the origin of the break of gauge in Australia, and the various projects to overcome it.)
- HEDDLE, Enid M. Story of a vineyard, "Chateau Tahbilk". Melb., Cheshire, 1960. 30s. (A centenary history of the vineyard established on the Goulburn River, Victoria.)
- HEINTZ, A. The fabulous hill. Melb., Broken Hill Associated Smelters Pty. Ltd., 1960. 25s. (An account of the Broken Hill base metal industry.)
- INTERNATIONAL CONGRESS OF SCIENTIFIC MANAGEMENT, *12th, Australia*, 1960. Papers. Melb., 1960.
- NATIONAL EXPORT CONVENTION, *17th to 19th May*, 1960. Report of the Convention held at the Academy of Science Building, Canberra. Melb., Export Development Council, 1960.
- NEW SOUTH WALES. University. The industrial development of Australia: papers presented at the Symposium, held at the University of New South Wales on 17th and 18th November, 1959. Syd., University of New South Wales, 1960. 12s. 6d.
- O'LOGHLEN, F., *ed.* Cattle country: an illustrated survey of the Australian beef cattle industry: a complete directory of the studs: ed. by F. O'Loughlen and F. H. Johnston. Syd., F. H. Johnston, 1960. 75s.
- QUEENSLAND—*Agriculture and Stock, Department of*. An economic survey of the wheat-growing industry in Queensland. Brisb., 1960. *gratis*.
- REITSMA, A. J. Trade protection in Australia. Brisb., Univ. of Queensland Press, 1960.
- TASMANIA—*Premier and Chief Secretary's Departments—Industrial Development Branch*. Industrial index: a businessman's handbook: facts and figures relating to investment in Tasmania. Hobart, 1960.
- WADHAM, Sir SAMUEL M. Land utilization in Australia: (3rd ed. by Sir Samuel Wadham, R. Kent Wilson and Joyce Wood.) Melb., Melbourne Univ. Press, 1957. 40s.

Science and Technology.

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- AUSTRALIA—*Commonwealth Scientific and Industrial Research Organization*. A manual of Australian soils: by C. G. Stephens. Melb., 1953. 25s.
- AUSTRALIA—*Meteorology, Bureau of*. Climatological atlas of Australia. Melb., 1940. 10s. 6d.
- AUSTRALIAN ACCOUNTANCY PROGRESS. Syd., Butterworth, 1954 to date. Annual. 37s. 6d.
- AUSTRALIAN JOURNAL OF BIOLOGICAL SCIENCES. Melb., C.S.I.R.O., 1951 to date. Quarterly. 40s. *per annum*.
- AUSTRALIAN JOURNAL OF CHEMISTRY. Melb., C.S.I.R.O., 1951 to date. Quarterly. 40s. *per annum*.
- AUSTRALIAN JOURNAL OF EXPERIMENTAL BIOLOGY AND MEDICAL SCIENCE. Adel., Medical Sciences Club, University of Adelaide, 1924 to date. Bi-monthly. 60s. *per annum*.
- AUSTRALIAN JOURNAL OF PHYSICS. Melb., C.S.I.R.O., 1951 to date. Quarterly. 40s. *per annum*.
- AUSTRALIAN JOURNAL OF SCIENCE. Syd., Australian and New Zealand Association for the Advancement of Science, 1938 to date. Bi-monthly. 55s. *per annum*.
- AUSTRALIAN VETERINARY JOURNAL. Syd., Australian Veterinary Association. Monthly. 1925 to date. 80s. *per annum*.
- AUSTRALIAN ZOOLOGIST. Syd., Royal Zoological Society of N.S.W., 1914 to date. Annually. 12s. 6d. *per issue*.
- BARRIE, D. M. The Australian Bloodhorse. Syd., Angus and Robertson, 1956. 126s.
- BELSCHNER, H. G. Sheep management and diseases: (5th ed.). Syd., Angus and Robertson, 1957. 105s. (Agricultural and livestock series.)
- CLARK, J. The formicidae of Australia: v. 1. Melb., C.S.I.R.O., 1952. 25s.
- DAVID, Sir T. W. Edgeworth. Geology of the Commonwealth of Australia: ed. and much supplemented by W. R. Browne. Lond., E. Arnold, 1950. 252s.
- GANDEVIA, B. An annotated bibliography of the history of medicine in Australia. Syd., A'sian Medical Pub. Co., 1957. 35s. (British Medical Association in Australia—Federal Council Monographs 1.)
- HUNGERFORD, T. G. Diseases of livestock (4th ed.). Syd., Angus and Robertson, 1959. 80s.
- INSTITUTION OF ENGINEERS OF AUSTRALIA. Journal. Syd., 1929 to date. Eight issues a year. 105s. *per annum*.
- KELLEY, R. B. Sheep dogs: their breeding, maintenance and training: (3rd ed.). (reprint) Syd., Angus and Robertson, 1958. 25s. (Agricultural and livestock series.)
- LASERON, C. F. Ancient Australia: the story of its past geography and life. Syd., Angus and Robertson, 1954. 25s.
- The face of Australia: the shaping of a continent: maps and sketches by the author (2nd ed.). Syd., Angus and Robertson, 1954. 25s.
- McLUCKIE, J. Australian and New Zealand botany: by John McLuckie and H. S. McKee. Syd., associated General Publications, 1956. 84s.
- MEDICAL JOURNAL OF AUSTRALIA. Syd., A'sian Medical Pub. Co., 1856 to date. Weekly. 3s. *per issue*.
- MUELLERIA. Melb., National Herbarium, 1955 to date. Irreg.
- MUSGRAVE, A., *comp.* Bibliography of Australian entomology: 1775–1930. Syd., Royal Zoological Society of New South Wales, 1932. 10s.
- REHN, A. G. The grasshoppers and locusts (acridoidea) of Australia: v. 1–3. Canb., C.S.I.R.O., 1952–1957.
- ROBERTS, F. H. S. Insects affecting live-stock with special reference to important species occurring in Australia. Syd., Angus and Robertson, 1952. 45s.
- TITTERTON, E. W. Facing the atomic future: foreword by Professor M. L. Oliphant. Melb., Cheshire, 1956. 32s. 6d.
- See also publications of Australian and New Zealand Association for the Advancement of Science, Australian Institute of Agricultural Science, Commonwealth Scientific and Industrial Research Organization, Commonwealth Bureau of Mineral Resources, Commonwealth Solar Observatory, Royal Australian Chemical Institute, the Royal Societies, the Universities, the scientific institutions, and works under the headings *Ethnology* and *Natural History* in this list.

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- AUSTRALASIAN CONFERENCE ON RADIATION BIOLOGY, 2nd. Melbourne, 1958. Radiation biology: proceedings of the conference held by the Australian Radiation Society (ed. by J. H. Martin). Lond., Butterworths Scientific Publications, 1959. 63s.
- AUSTRALIA—*Commonwealth Scientific and Industrial Research Organization*. C.S.I.R.O. and the wool-grower. Melb., 1960. *gratis*.
- Wool research laboratories of C.S.I.R.O. Melb., 1960.
- AUSTRALIA—*Parliament—Senate: Select Committee . . . upon Road Safety*. Report. Canb., 1960. 1s. 9d.
- AUSTRALIAN ATOMIC ENERGY SYMPOSIUM, Sydney, 2–6 June, 1958. Proceedings. Melb., Melbourne Univ. Press, 1959. 105s.
- AUSTRALIAN COAL MINING AND MINE MECHANISATION: the annual review of Australian mine mechanisation practice, equipment and research. Syd., Magazine Associates, 1960 to date.
- AUSTRALIAN INSTITUTE OF AGRICULTURAL SCIENCE. Agricultural scientists in Australia. Melb., 1959. *gratis*.
- BELISARIO, J. C. Cancer of the skin. Lond., Butterworth, 1959. 50s.
- BRITISH COMMONWEALTH FORESTRY CONFERENCE, 7th Australian and New Zealand, 26th Aug.–10th Oct., 1957. Proceedings: Canb., Govt. Pr., 1958. 20s.
- BURNET, Sir F. MACPARLANE. The viruses: biochemical, biological and bio-physical properties: ed. by F. M. Burnet and W. M. Stanley. N.Y., Academic Press, 1959. 211s. 2v. (The author shared the Nobel Prize for Medicine, 1960, for his research work on virus diseases.)
- BUTLER, S. T., and others, eds. From nucleus to universe. Syd., Shakespeare Head, 1960. 84s. (Lectures contributed to the Nuclear Research Foundation Summer School for Science Teachers, at the University of Sydney, January 11–22, 1960.)
- HARRISON, R. E. Handbook of trees and shrubs for the southern hemisphere. Syd., Angus and Robertson, 1959. 63s.

Science and Technology—continued.

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- HILL, D., ed. The geology of Queensland: ed. by D. Hill and A. K. Denmead. Melb., Melbourne Univ. Press on behalf of the Geological Society of Australia, 1960. 100s. (Originally published as v. 7 of the *Journal of the Geological Society of Australia*.)
- HODGE, J. E. Green fields and pastures new: 3rd ed. Adel., Hodge & Sons, 1959. 20s. (An account of experiments in soil conservation and pasture improvement in South Australia.)
- HUTCHINSON, R. C. Food for longer living. Melb., Melbourne Univ. Press, 1960. 5s. 6d.
- JAMES, W. A word book of wine. Melb., Georgian House, 1959. 26s.
- KELLEY, R. B. Principles and methods of animal-breeding: rev. ed. Syd., Angus and Robertson, 1960. 48s. (Agricultural and livestock series.)
- NEW SOUTH WALES—Public Health, Department of. Food and nutrition. Syd., 1960. *gratis*.
- NEW SOUTH WALES. University—Symposium on Design, 2nd–3rd Dec., 1958. Design in Australian industry: papers presented at the Symposium. Syd., University of New South Wales, 1960. 12s. 6d.
- SINTERING SYMPOSIUM, Port Pirie, South Australia, September, 1958. (Papers and discussion.) Melb., A'sian Institute of Mining and Metallurgy, 1958. 50s.
- SMITH, ELEANOR N. Bibliography of South Australian geology: includes all literature published to and including June, 1958. Adel., South Australian Dept. of Mines and Geological Survey, 1959. 5s.
- STOKES, E. H. The jubilee book of the Sydney Hospital Clinical School. Syd., Angus and Robertson, 1960. 35s. (Sponsored by the Sydney Hospital.)
- SUTTON, P. R. N. Fluoridation: errors and omissions in experimental trials: 2nd ed. Melb., Melbourne Univ. Press, 1960. 12s. 6d.
- TORY, B. E. Photo lithography. Syd., Horwitz, 1959. 84s.
- WHITTET, J. N., comp. Weeds. Syd., New South Wales Department of Agriculture, 1958. (Farmers' handbook series.)
- WILSON, F. A review of the biological control of insects and weeds in Australia and Australian New Guinea. Farnham Royal, Bucks., Commonwealth Agricultural Bureaux, 1960. 25s.

Natural History.

STANDARD WORKS IN PRINT.

- ALLAN, C. M. JOYCE. Australian shells. Melb., Georgian House, 1959. 84s. (First published in 1950.)
- AUSTRALIA—Commonwealth Forestry and Timber Bureau. Forest trees of Australia. Canb., 1957. 42s.
- AUSTRALIAN MUSEUM MAGAZINE. Syd., 1921 to date. Quarterly. 10s. *per annum*.
- BARRETT, C. L. Butterflies of Australia and New Guinea: by C. L. Barrett and A. N. Burns. Melb., Seward, 1952. 55s.
- Wild life of Australia and New Guinea. Melb., Heinemann, 1954. 18s. 6d.
- CAYLEY, N. W. What bird is that? a guide to the birds of Australia. (2nd ed.) Syd., Angus and Robertson, 1958. 45s.
- DAKIN, W. J. Australian seashores: a guide for the beach-lover, the naturalist, the shore fisherman, and the student: by William J. Dakin, assisted by Isobel Bennett and Elizabeth Pope (new ed.). Syd., Angus and Robertson, 1952. 45s.
- GILLET, K. The Great Barrier Reef and adjacent isles: a comprehensive survey for visitor, naturalist and photographer: by Keith Gillett and Frank McNeill. Syd., Coral Press, 1959. 70s.
- HARRIS, THISTLE Y. Wild flowers of Australia (4th ed.). Syd., Angus and Robertson, 1956. 42s. (First published in 1938.)
- KINGHORN, J. R. The snakes of Australia: (new ed.). Syd., Angus and Robertson, 1956. 25s.
- LEACH, J. A. An Australian bird book: a complete guide to the birds of Australia: rev. and rewritten by Philip Crosbie Morrison: 9th ed. Melb., Whitcombe and Tombs, 1958. 32s. 6d.
- Australian nature studies: a book of reference for those interested in nature study: 3rd. ed.: rev. by E. Byrne. Melb., Macmillan, 1952. 30s.
- NICHOLLS, W. H. Orchids of Australia: drawn in natural colour by W. H. Nicholls with descriptive text: (introd. by S. T. White). Melb., Georgian House, 1951. 3 pts. 150s. each.
- ROUGHLEY, T. C. Wonders of the Great Barrier Reef: (2nd ed.). Syd., Angus and Robertson, 1951. 30s.
- TROUGHTON, E. Le G. Furred-animals of Australia (3rd ed.). Syd., Angus and Robertson, 1951. 35s.
- WORRELL, E. Dangerous snakes of Australia: a handbook for bushmen, bushwalkers, mission workers, servicemen, boy scouts, New Australians and naturalists on the identification and venoms of Australian snakes with directions for first aid treatment of snake-bite. Syd., Angus and Robertson, 1956. 12s. 6d.

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- BELL, A. Some common Australian birds: by Allan and Shirley Bell. Melb., Oxford Univ. Press 1956. 35s.
- BROOKS, A. E. Australian native plants for home gardens. Melb., Lothian, 1959. 45s.
- CHISHOLM, A. H. The romance of the lyrebird. Syd., Angus and Robertson, 1960. 27s. 6d.
- COGGER, H. G. The frogs of New South Wales. Syd., Australian Museum, 1960. 3s. 6d.
- FLEAY, D. Living with animals. Melb., Lansdowne Press, 1960. 16s.
- HARRIS, THISTLE Y., ed. Naturecraft in Australia: an introductory handbook to the fauna and flora and to the Australian environment for the use of the bushwalker, student, teacher, field naturalist and conservationist. Syd., Angus and Robertson, 1956. 25s.
- HYETT, J. A bushman's year. Melb., Cheshire, 1959. 30s.
- KEAST, J. A. Some bush birds of Australia. Brisb., Jacaranda, 1960. 12s. 6d. (Jacaranda pocket guides.)
- Window to bushland. Syd., Educational Press, 1959. 16s.
- McMICHAEL, D. F. Some common shells of the Australian sea-shore. Brisb., Jacaranda, 1960. 12s. 6d. (Jacaranda pocket guides.)
- McPHEE, D. R. Some common snakes and lizards of Australia. Brisb., Jacaranda Press, 1959. 12s. 6d. (Jacaranda pocket guides.)
- MERTENS, R. Quer durch Australien: biologische Aufzeichnungen über eine Forschungsreise. Frankfurt, Kramer, 1958. (A zoologist's account of Australia.)
- WHITLEY, G. Native freshwater fishes of Australia. Brisb., Jacaranda, 1960. 12s. 6d. (Jacaranda pocket guides.)

Ethnology.

STANDARD WORKS IN PRINT:

- AUSTRALIA—*Territories, Department of.* Our aborigines: prepared under the authority of the Minister for Territories, with the co-operation of the Ministers responsible for aboriginal welfare in the Australian States. Canb., Govt. Pr., 1957.
- Progress towards assimilation: aboriginal welfare in the Northern Territory. Canb., 1958.
- BERNDT, R. M. From black to white in South Australia: by Ronald and Catherine Berndt. Melb. Cheshire, 1951. 37s. 6d.
- ELKIN, A. P. The Australian aborigines: how to understand them (3rd ed.). Syd., Angus and Robertson, 1954. 30s.
- HASLUCK, Hon. P. M. C. Native welfare in Australia: speeches and addresses. Perth, Paterson Brokensha, 1953. 5s.
- MCCARTHY, F. D. Australia's aborigines: their life and culture. Melb., Colorgravure, 1957. 170s.
- MOUNTFORD, C. P. Records of the American-Australian scientific expedition to Arnhem Land: v. 1, Art, myth and symbolism. Melb., Melbourne Univ. Press, 1956. 126s.
- OCEANIA: a journal devoted to the study of the native peoples of Australia, New Guinea, and the islands of the Pacific Ocean. Syd., University of Sydney, 1930 to date. Quarterly. 40s. per annum.
- PARKER, K. L. Australian legendary tales: collected by K. Langloh Parker: selected and edited by H. Drake-Brockman: illus. by Elizabeth Durack. Syd., Angus and Robertson, 1953. 25s.
- WILLIAMS, F. E. Orokaiva magic. Oxf., Oxford Univ. Press, 1928. 12s. 6d.
- Orokaiva society. Oxf., Oxford Univ. Press, 1930. 25s. (Since 1958 these two works have been distributed by the Administrator, Territory of Papua and New Guinea.)
- Papua of the Trans-Fly. Oxf., Oxford Univ. Press, 1936. 30s.
- See also the anthropological reports of the Governments of Papua and New Guinea, and the publications of the South Pacific Commission.

RECENT PUBLICATIONS OF INTEREST:

- ANELL, B. Hunting and trapping methods in Australia and Oceania. Lund, Haken Oblssons Boktryckeri, Printer, 1960. 60s. (Studia Ethnographica Upsaliensia XVIII.) (Studies the methods used by Australian, New Zealand, New Guinea, Melanesian and Polynesian natives.)
- AUSTRALIA—*Territories, Department of.* Fringe dwellers. Canb., Govt. Pr., 1959. gratis.
- BURRIDGE, K. O. L. Mambu: a Melanesian millenium. Lond., Methuen, 1960. 62s. (A study of "Cargo" in the Tangu and Manam Island communities.)
- DART, R. A. Adventures with the missing link. Lond., H. Hamilton, 1959. 31s. (Though the author is an Australian, his researches into prehistoric man, during which he discovered the Taungs Skull, have been conducted mostly on the African continent. He was Dean of the Faculty of Medicine at Witwatersrand University from 1925 to 1943.)
- GARDI, R. Tambaran: an encounter with cultures in decline in New Guinea. Lond., Constable, 1960. 30s.
- GOODALE, JANE C. The Tiwi women of Melville Island, Australia: a dissertation in anthropology. Ann Arbor, Mich., University Microfilms, 1959. \$14.80.
- HARNEY, W. E. Tales from the aborigines. Lond., Hale, 1959. 18s.
- MCCARTHY, F. D. Australian aboriginal rock art: foreword by A. P. Elkin. Syd., Australian Museum, 1958. 5s.
- REAY, MARIE O. The Kuma: freedom and conformity in the New Guinea highlands. Melb., Melbourne Univ. Press., 1959. 45s.
- ROBINSON, R. The feathered serpent: the mythological genesis and recreative ritual of the aboriginal tribes of the Northern Territory. Syd., Edwards & Shaw, 1956. 30s.
- SCHLAGENHAUFEN, O. Muliam: zwei Jahre unter Sudsee—Insulanern. Zurich, Orell Fussli, 1959. (A detailed account of native life in the north eastern part of New Guinea and the adjoining islands.)
- VILLEMONT, J. Paradis primitif. Paris, Connaissance du Monde, 1959. \$2.50. (A well illustrated account of the Pitjantjatjara tribe of Central Australia.)
- WELLS, ANNIE E. Tales from Arnhem Land: illus. by Margaret Paice. Syd., Angus and Robertson, 1959. 16s. (Legends of the Australian aborigines.)

Art, Architecture, Music and Theatre.

STANDARD WORKS IN PRINT.

- ANDERSON, H. Australian song index, 1828–1956. Ferntree Gully, Vic., Rams Skull Press, 1957. 18s.
- BADHAM, H. E. A gallery of Australian art: chosen and introd. by Herbert Badham. Syd., Currawong 1954. 73s. 6d.
- BARNETT, P. N. Australian book-plates and book-plates of interest to Australia. Syd., Beacon Press, 1950. 252s.
- CASEY, MAIE (*Lady*) comp. Early Melbourne architecture: 1840–1888 (comp. and ed. by Maie Casey and others). Melb., Oxford Univ. Press, 1953. 40s.
- CATO, J. The story of the camera in Australia. Melb., Georgian House, 1955. 126s.
- GODDARD, R. H. Australian landscapes in miniature. Syd., Legend Press, 1952. 12s. 6d.
- HALL, H. B. Ballet in Australia from Pavlova to Rambert. Melb., Georgian House, 1948. 105s.
- HERMAN, M. E. The early Australian architects and their work: illus. and decorated by the author. Syd., Angus and Robertson, 1954. 84s.
- HOPF, URSULA. Masterpieces of the National Gallery of Victoria. Melb., Cheshire, 1949. 70s.
- MCGUIRE, D. P. The Australian theatre . . . by P. McGuire, B. Arnott and F. M. McGuire. Melb., Oxford Univ. Press, 1948. 12s. 6d.
- ORCHARD, W. A. Music in Australia: more than 150 years of development. Melb., Georgian House, 1952. 30s.

Art, Architecture, Music and Theatre—*continued.*

RECENT PUBLICATIONS OF INTEREST.

- ANDERSON, H. The colonial minstrel. Melb., Cheshire, 1960. 30s. (The life of Charles Thatcher a well-known figure of the theatrical world of Australia and New Zealand during the period 1852 to 1870.)
- AUSTRALIAN ABORIGINAL ART: an exhibition arranged by the State Art Galleries of Australia: 1960–1961. Syd., Edwards and Shaw, 1960.
- AUSTRALIAN THEATRE YEAR BOOK: (ed. by the Australian Elizabethan Theatre Trust.). Melb., Cheshire, 1958 to date. 20s.
- BONYTHON, K. Modern Australian paintings and sculpture. Adel., Rigby, 1960. 105s.
- BOYD, R. The Australian ugliness. Melb., Cheshire, 1960. 30s. (A commentary, by a leading Australian architect, on the attitude of Australians towards standards of design and taste in their urban surroundings.)
- BUNBURY, ALICE. Floral art for pleasure. Melb., Georgian House, 1960. 37s. 6d.
- DRYSDALE, G. R. Russell Drysdale: a retrospective exhibition of paintings from 1937 to 1960, (arranged by the) Art Gallery of New South Wales: with an introduction by Paul Haefliger. Syd. Ure Smith, 1960. 5s.
- HOFF, URSULA. Charles Conder: his Australian years. Melb., National Gallery Society of Victoria, 1960. 30s.
- HUNT, H. The making of Australian theatre. Melb., Cheshire, 1960. 12s. 6d. (Kathleen Robinson Lectures on Drama and the Theatre, delivered at the University of Sydney.)
- KARDOSS, J. Theatre arts in Australia. Syd., Wentworth Press, 1960. 6s.
- LARHEY, VIDA. Art in Queensland 1859–1959. Brisb., Jacaranda, for Queensland National Art Gallery, 1959. 12s. 6d.
- MORGAN, H. A. Architecture of the twentieth century: by H. A. Morgan and A. T. Price. Syd., Angus and Robertson, 1960. 21s.
- OLYMPIC GAMES, 16th, Melbourne Nov.–Dec., 1956—*Organizing Committee*. The arts festival of the Olympic Games, Melbourne: a guide to the exhibitions with introductory commentaries on the arts in Australia. Melb., Olympic Civic Committee of the Melbourne City Council, 1956. 21s.
- ROBERTSON, E. G. Victorian heritage: ornamental cast iron in architecture. Melb., Georgian House, 1960. 168s.
- ROYAL AUSTRALIAN INSTITUTE OF ARCHITECTS—*Queensland Chapter—Publications Committee*. Buildings of Queensland . . . a record of architecture in Queensland . . . (ed. by E. J. A. Weller and others.). Brisb., Jacaranda Press, 1959. 18s. 6d.
- SEIDLER, H. Houses, interiors and projects. Syd., Associated General Publications, 1959. 84s. (First published in 1954.)
- SMITH, B. W. European vision and the South Pacific, 1768–1850; a study in the history of art and ideas. Oxf., Clarendon Press, 1960. 84s.
- WRIGHT, R. P. Western landmarks: historic buildings of Western Australia: drawings by H. Smeed. Perth, Paterson Brokensha, 1960. 8s. 6d.
- ZEIGLER, O. L., ed. Australian photography, 1957. Syd., Oswald Zeigler Publications, 1957. 30s.

Sport.

STANDARD WORKS IN PRINT.

- COOMBE, D. C. History of the Davis Cup: being the story of the International Lawn Tennis Championship, 1900–48. Syd., A'sian Pub. Co., 1949. 17s. 6d.
- EDWARDS, S. H. Shooting and shooting bushcraft: (2nd ed.). Syd., Angus and Robertson, 1959. 15s.
- MACLAREN, T. M. The Australian golfer's handbook, 1957. Syd., Langside Pub. Co., 1960 (incorporating *Who's who in Australian golf*). 20s.
- MILLER'S SPORTING ANNUAL AND ATHLETIC RECORD. Melb., Herald and Weekly Times, 1918 to date. Annual. 5s. per issue.
- MISSINGHAM, H. Good fishing: a handy guide for Australia with illustrations of the most commonly caught fish. Syd., Dymock's, 1953. 10s. 6d.
- OLYMPIC GAMES, 16th Melbourne, Nov.–Dec. 1956—*Organizing Committee*. The official report . . . for the Games of the XVI Olympiad, Melbourne 1956. Melb., 1958.
- WINNER, K., comp. The story of Australian motoring. Melb., Motor Manual Publications, 1955.
- Wild game of Australia. Melb., Motor Manual Publications, 1953. 27s.

RECENT PUBLICATIONS OF INTEREST.

- BLOOMFIELD, J. Know-how in the surf. Syd., Angus and Robertson, 1959. 25s.
- BRADMAN, Sir DONALD G. The art of cricket. Lond., Hodder, 1958. 30s.
- BULL, J. The spiked shoe. Melb., National Press, 1959. 18s. 6d. (A history of professional running in Australia, with special reference to Victorian performances.)
- CAVANOUGH, M. Cup day: the story of the Melbourne Cup 1861–1960: by Maurice Cavanough and Meurig Davies. Melb., Cheshire, 1960. 32s. 6d.
- CERUTTY, P. W. Athletics: how to become a champion. Lond., Stanley Paul, 1960. 21s.
- DU CROS, E. Skindiving in Australia. Syd., Angus and Robertson, 1960. 27s. 6d.
- EDRICH, W. J. Round the wicket. Lond., Muller, 1959. 16s. (A critical account of English-Australian cricket during the post-war years, and especially of the 1958–59 English tour of Australia.)
- FINGLETON, J. H. Four chukkas to Australia: the 1958–59 M.C.C. tour of Australia. Lond., Heinemann, 1959. 20s.
- Masters of cricket from Trumper to May: foreword by R. G. Menzies. Lond., Heinemann, 1958. 15s.
- HOINVILLE, F. D. Halfway to heaven. Syd., Angus and Robertson, 1960. 27s. 6d. (Recounts the experiences of the author in sky writing, gliding, and stunt flying. Hoinville was killed in a glider crash in 1959.)
- HUNGERFORD, R. B. The shooters' omnibus. Syd., Afco, 1959. 20s.

Sport—continued.

RECENT PUBLICATIONS OF INTEREST—continued.

- KILBURN, J. M. Cricket decade: England v. Australia, 1946–1956. Lond., Heinemann, 1959. 15s.
 MCKAY, D. Behind the wheel. Syd., Ure Smith, 1960. 25s. (An account of motor sport and professional car racing in Australia.)
 MARTIN, D. Australia astride. Syd., Angus and Robertson, 1959. 25s. (A comprehensive work on all characteristics and standards of Australian horsemanship.)
 MOYES, A. G. Australian cricket: a history: by A. G. ("Johnny") Moyes. Syd., Angus and Robertson, 1959. 50s.
 —Benaud and Co.: the story of the tests, 1958–59: by A. G. ("Johnny") Moyes. Syd., Angus and Robertson, 1959. 22s. 6d.
 MULLEN, C. C. History of Australian rules football, 1858–1958. Carlton, Vic., 1959.
 PATTERSON, G. H. Chasing rainbows: happy days along the trout streams. Syd., Murray Pub. Co., 1959. 18s. 6d.
 PEEBLES, I. The fight for the ashes, 1958–1959: the English tour in Australia and New Zealand. Syd., Angus and Robertson, 1959. 21s.
 POLASEK, O. Skiing: by Ollie Polasek. Melb., Lothian, 1959. 37s. 6d.
 WAKLEY, B. J. Bradman the great. Lond., Kaye, 1959. 63s.
 WEDLICK, L. 50 ways to fool a trout. Ballarat, H. S. Gerard, 1960. 10s.
 —Fishing in Victoria. Ballarat, H. S. Gerard, 1960. 10s.
 WELLINGS, E. M. The ashes thrown away. Syd., Dymock's, 1959. 16s. (An explanation, by an English cricket writer, for the M.C.C. defeat in 1958–59.)
 WORDLEY, D., ed. How to play Aussie rules. Melb., Lansdowne Press, 1960. 19s. 6d.

Literature and Language.

*CRITICISM, BIBLIOGRAPHY AND ANTHOLOGIES.

STANDARD WORKS IN PRINT.

- AUSTRALIAN BROADCASTING COMMISSION—*Standing Committee on Spoken English*. A guide to the pronunciation of Australian place names. Syd., Angus and Robertson, 1957. 30s.
 AUSTRALIAN LETTERS. Adel., Mary Martin Bookshop, 1957 to date. Quarterly. 9s. 6d. *per issue*.
 AUSTRALIAN POETRY. Syd., Angus and Robertson, 1941 to date. Annual. 15s.
 COAST TO COAST: Australian stories. Syd., Angus and Robertson, 1943 to date. Annual. Various prices.
 CROWLEY, F. K. The records of Western Australia. Perth, Publications Committee of the University of Western Australia, 1953 to date. 84s. *per v*.
 FERGUSON, Sir JOHN A. Bibliography of Australia: v. 1–4: 1784–1850. Syd., Angus and Robertson, 1941 to date. v. 1–2 o.p., v. 3, 126s., v. 4, 210s., v. 5 and 6, 1851–1900 in preparation.
 GREEN, H. M., ed. Modern Australian poetry (2nd ed.). Melb., Melbourne Univ. Press, 1952. 17s. 6d.
 MACKANESS, G., comp. An anthology of Australian verse (2nd ed.). Syd., Angus and Robertson, 1952. 25s.
 MEANJIN: contemporary verse and prose. Melb., Melbourne Univ. Press, 1940 to date. Quarterly. 10s. 6d. *per issue*.
 MILLER, E. MORRIS. Australian literature: a bibliography to 1938: by E. Morris Miller: extended to 1950: (ed. with historical outline and descriptive commentaries by F. T. Macartney.) Syd., Angus and Robertson, 1956. 84s.
 MITCHELL, A. G. The pronunciation of English in Australia. Syd., Angus and Robertson, 1951. 12s. 6d. (First published in 1946.)
 MURDOCH, W. L. F. A book of Australian and New Zealand verse (4th ed.). chosen by Walter Murdoch and Alan Mulgan. Melb., Oxford Univ. Press, 1956. 14s.
 OVERLAND, Melb., S. Murray-Smith, 1954 to date. Quarterly. 2s. 6d. *per issue*.
 PHILLIPS, A. A. The Australian tradition: studies in a colonial culture. Melb., Cheshire, 1958. 19s. 6d.
 QUADRANT. Syd., Australian Assn. for Cultural Freedom, 1956 to date. Quarterly. 5s. *per issue*.
 QUEENSLAND PUBLIC LIBRARY—*Oxley Memorial Library*. Bibliography of Queensland verse with biographical notes: by J. H. Hornibrook. Brisb., 1953. 15s.
 RODERICK, C. An introduction to Australian fiction. Syd., Angus and Robertson, 1950. 12s. 6d.
 SERLE, P., comp. An Australasian anthology: comp. by P. Serle, F. L. T. Wilmot and R. H. Croll (new ed.). Syd., Collins, 1946. 8s. 6d.
 SOUTHERLY. Syd., Australian English Association, 1939 to date. Quarterly. 5s. *per issue*.
 STEWART, D. A., ed. Australian bush ballads: ed. by Douglas Stewart and Nancy Keesing. Syd., Angus and Robertson, 1955. 30s.
 —Old bush songs and rhymes of colonial times: enlarged and revised from the collection of A. B. Paterson: by Douglas Stewart and Nancy Keesing. Syd., Angus and Robertson, 1957. 25s.
 VERSE IN AUSTRALIA. Adel., Australian Letters, 1958 to date. Annually. 17s. 6d.
 WESTERLY. Nedlands, W.A., Arts Union, University of W.A., 1956 to date. Three issues a year 6s. *per issue*.

RECENT PUBLICATIONS OF INTEREST.

- BAKER, S. J. The drum: Australian character and slang. Syd., Currawong, 1959. 17s.
 BUCKLEY, V. Poetry and morality: studies on the criticism of Matthew Arnold, T. S. Eliot and F. R. Leavis. Lond., Chatto, 1959. 21s.
 EWERS, J. K. Creative writing in Australia: a selective survey: (3rd ed.). Melb., Georgian House, 1959. 10s. 6d.
 HADGRAFT, C. H. Australian literature: a critical account to 1955. Lond., Heinemann, 1960. 25s.
 —Queensland and its writers (100 years: 100 authors). Brisb., Univ. of Queensland Press, 1959. 16s. 6d.

* Excludes the works of individual authors, reference to which will be found in Miller, *Australian literature* and Serle, *An Australasian anthology*.

Literature and Language—continued.

* CRITICISM, BIBLIOGRAPHY AND ANTHOLOGIES—continued.

RECENT PUBLICATIONS OF INTEREST—continued.

- LAWSON, H. H. The selected works of Henry Lawson: ed. and introd. by Lyle Blair. East Lansing, Mich., Michigan State Univ. Press, 1957. \$5.00.
- MACARTNEY, F. T. Australian literary essays. Syd., Angus and Robertson, 1957. 21s.
- REED, T. T. Henry Kendall. Adel, Rigby, 1960. 6s. 9d. (Australian men of letters.)
- SOUTHERN FESTIVAL: a collection of South Australian writing: compiled by the S.A. Fellowship of Australian Writers. Adel, Rigby, 1960. 25s.
- TENNANT, KYLIE. The development of the Australian novel . . . lecture, Canberra, Thursday, 15th May, 1958. Canb., Canberra University College, 1958. (Commonwealth Literary Fund lecture, 1958.)
- THOMPSON, J., *jt. ed.* The Penguin book of Australian verse: selected and ed. by John Thompson, Kenneth Slessor and R. G. Howarth. Harmondsworth, Eng., Penguin Books, 1958. 3s.
- WANNAN, W. A treasury of Australian humour. Melb., Lansdowne Press, 1960. 30s.
- WIGMORE, L. G., *ed.* Span: an adventure in Asian and Australian writing: ed. for the Canberra Fellowship of Australian Writers. Melb., Cheshire, 1958. 25s.
- WRIGHT, JUDITH A., *comp.* New land, new language: an anthology of Australian verse. Melb., Oxford Univ. Press, 1957. 12s. 6d.

Fiction.

INCLUDES BOTH RECENT PUBLICATIONS AND REPRINTS OF WELL-KNOWN AUSTRALIAN WORKS.

- ALDRIDGE, J. Gold & sand: stories. Lond., Bodley Head, 1960. 12s. 6d.
- ASTLEY, THEA. A descendant for gossips. Syd., Angus and Robertson, 1960. 21s.
- ASTLEY, W. Convict days: by Price Warung (*pseud. i.e. William Astley*). Syd., Australasian Book Society, 1960. 25s. (A selection, taken from this author's four volumes of stories published in 1898.)
- BROWNE, T. A. Robbery under arms: a story of life in the bush and in the goldfields of Australia: by Rolf Boldrewood. Lond., Macmillan, 1958. 6s. (First published in 1888.)
- CAMPBELL, D. W. I. Evening under lamplight: short stories. Syd., Angus and Robertson, 1959. 15s.
- CARELL, V. Naked we are born. Syd., Ure Smith, 1960. 22s. 6d.
- CLEARLY, J. S. Back of sunset. Lond., Collins, 1959. 15s.
- North from Thursday. Lond., Collins, 1960. 16s.
- DARK, ELEANOR. Lantana Lane. Lond., Collins, 1959. 18s. 9d.
- The timeless land. Syd., Collins, 1956. 16s. First published in 1941. The author continued this story of early Sydney in her *Storm of time* and *No barrier*.
- DOUGHTY, JAMES. The green stick. Lond., Collins, 1960. 20s.
- DOW, H., *comp.* World unknown: an anthology of Australian prose selected by Hume Dow and John Barnes. Melb., Oxford Univ. Press, 1960. 13s. 6d.
- EVERS, L. H. Make way for to-morrow. Lond., Hodder, 1960. 18s. 9d.
- FOWLER, HELEN. The refugee. Syd., Angus and Robertson, 1960. 21s.
- FRANKLIN, STELLA MILES. All that swagger (2nd ed.). Syd., Angus and Robertson, 1956. 25s.
- FURPHY, J. Such is life: being certain extracts from the diary of Tom Collins. Syd., Angus and Robertson, 1956. 25s. (First published in 1903.)
- GRIFFIN, G. Sons of God. Lond., Angus and Robertson, 1960. 16s.
- GUNN, JEANNIE. We of the Never-never. Melb., Robertson and Mullens, 1954. 45s. (First published in 1908.)
- HUSH, THEA. The edifice. Lond., New Authors, 1960. 15s.
- JAMES, B., *comp.* Selected Australian stories: an anthology. Melb., Oxford Univ. Press, 1959. 12s. 6d.
- JOHNSTON, G. H. The darkness outside. Lond., Collins, 1959. 15s.
- KOCH, C. The boys in the island. Lond., Hamilton, 1959. 18s. 9d.
- LAMBERT, E. F. The rehabilitated man. Lond., Muller, 1960. 13s. 6d.
- LAWSON, H. H. Prose works. Syd., Angus and Robertson, 1956. 35s. (First published in 1935.)
- LINDSAY, H. A. The red bull. Lond., Hale, 1959. 12s. 6d.
- LINDSAY, N. A. W. Redheap. Syd., Ure Smith, 1959. 21s. (First published in 1930.)
- MCGHEE, J. The middle way. Lond., Hale, 1959.
- Walls of time. Lond., Hale, 1960. 12s. 6d.
- MCLEAN, D. J. The roaring days: an Australian yarn. Lond., Macmillan, 1960. 16s.
- MANN, L. Andrea Caslin. Lond., Cape, 1959. 22s. 6d.
- NOONAN, M. The patchwork hero. Lond., Heinemann, 1959. 15s.
- NORWAY, N. S. Trustee from the toolroom. Lond., Heinemann, 1960. 16s.
- O'CONNOR, E. The Irishman: a novel of Northern Australia (by Barbara McNamara). Syd., Angus and Robertson, 1960. 22s. 6d.
- PALMER, E. V. The big fellow. Syd., Angus and Robertson, 1959. 25s.
- PORTEOUS, R. S. Cattleman. Syd., Australasian Pub. Co., 1960. 17s.
- PRITCHARD, KATHARINE S. Working bullocks. Syd., Angus and Robertson, 1956. 16s. (First published in 1926.)
- RICHARDSON, H. H. The fortunes of Richard Mahony. Melb., Heinemann, 1951. 17s. 6d. (First published in 1917.)
- RUHEN, O. White man's shoes. Lond., Macdonald, 1960. 15s.
- SAYLE, M. A. A crooked sixpence. Lond., Macgibbon & Kee, 1960. 16s.
- SPENDER, JEAN (*Lady*). Murder on the prowl. Lond., Hale, 1960. 10s. 6d.
- STOW, J. R. To the island. Lond., Macdonald, 1959. 17s.
- UPFIELD, A. Bony and the Kelly Gang. Lond., Heinemann, 1960. 12s. 6d.
- VON BERTOUCHE, ANNE. February dark. Lond., Constable, 1959. 22s. 6d.

* Excludes the works of individual authors, reference to which will be found in Miller, *Australian literature* and Serle, *An Australasian anthology*.

Fiction—continued.

INCLUDES BOTH RECENT PUBLICATIONS AND REPRINTS OF WELL-KNOWN AUSTRALIAN WORKS—continued.

- WANNAN, W. Bullockies, beautes and bandicoots. Melb., Lansdowne Press, 1960. 7s. 6d. (A collection of stories from the outback, mainly humorous.)
 WEST, M. L. The devil's advocate. N.Y., Morrow, 1959. \$3.95.
 WILSON, G. Dear Miranda. Lond., Hutchinson, 1959. 17s.
 —The incorruptibles. Lond., Hutchinson, 1960.

Poetry.

RECENT PUBLICATIONS OF INTEREST.

- BRABAZON, F. Stay with God: a statement in illusion on reality. Syd., Garuda Books, 1960. 18s.
 BRENNAN, C. J. The verse of Christopher Brennan: ed. by A. R. Chisholm and J. J. Quinn with a biographical introd. by A. R. Chisholm. Syd., Angus and Robertson, 1960. 30s.
 CATO, NANCY F. The dancing bough. Syd., Angus and Robertson, 1957. 16s.
 FITZGERALD, R. D. This night's orbit. Melb., Melbourne Univ. Press, 1953. 21s.
 GILMORE, Dame MARV. Fourteen men: verses. Syd., Angus and Robertson, 1954. 15s.
 HUGHAM, C. The earthbound and other poems. Syd., Angus and Robertson, 1959. 10s. 6d. (Modern Australian poets.)
 HOPE, A. D. Poems. Lond., H. Hamilton, 1960. 15s.
 HUDSON, W. F. F. Pools of the Cinnibar Range: (by) Flexmore Hudson. Melb., Robertson and Mullens, 1959. 15s.
 JONES, E. Inside the whale. Melb., Cheshire, 1960. 15s.
 MCCRAE, H. R. Forests of Pan. Brisb., Meanjin, 1944. 4s. 6d.
 McDONALD, NANCY M. The lighthouse and other poems. Syd., Angus and Robertson, 1959. 16s.
 MANN, L. Elegiac and other poems. Melb., Cheshire, 1957. 17s. 6d.
 PATERSON, A. B. Collected verse. Syd., Angus and Robertson, 1956. 17s. 6d.
 POETRY SOCIETY OF AUSTRALIA. First anthology 1956. Syd., Printed by Edwards and Shaw, 1957. 21s.
 SIMPSON, R. A. The walk along the beach. Syd., Edwards and Shaw, 1960. 12s. 6d.
 SLESSOR, K. Poems: (2nd ed.) Syd., Angus and Robertson, 1957. 16s.
 SMITH, W. H. Poems of discovery. Syd., Angus and Robertson, 1959. 16s.
 STEWART, D. A., ed. Voyager poems. Brisb., Jacaranda, 1960. 12s. 6d.
 TAIT, JOAN. The south and the north. Syd., Elizabethan Press, 1960. 15s.
 THIELE, C. Man in a landscape. Adel., Rigby, 1960. 17s. 6d.
 THOMPSON, J. Thirty poems. Syd., Edwards and Shaw, 1954. 10s. 6d.
 WRIGHT, JUDITH A. The two fires. Syd., Angus and Robertson, 1955. 15s.

Drama and Essays.

RECENT PUBLICATIONS OF INTEREST.

- BEYNON, R. The shifting heart: a play in three acts. Lond., Samuel French, 1960. 6s.
 CUSACK, E. Dymphna. The golden girls: a play in three acts. Lond., Deane, 1955. 5s.
 FAIRFAX, J. F. Laughter in the camp: ed. by Archer Russell: illus. by Lenore O'Brien, Syd., Warwick Boyce, 1958. 16s. 6d.
 JOHNSON, R. C. Watcher on the hills: a study of some mystical experiences of ordinary people. N.Y., Harper, 1959, 21s. (The author is Master of Queens College, University of Melbourne.)
 JURY, C. R. The sun in servitude and other plays. Melb., Cheshire, 1960. 42s. (The late Charles Jury was Professor of English at Adelaide University from 1946 to 1950.)
 MCAULEY, J. P. The end of modernity: essays on literature, art and culture. Syd., Angus and Robertson, 1959. 17s. 6d.
 STEWART, D. A. Fisher's ghost: an historical comedy: illustrated by Norman Lindsay. Syd., Wentworth Press, 1960.
 WEISS, R. The secret of individuality: reflected in a hundred historical lives. Syd., Angus and Robertson, 1960. 42s.

Children's Books.

RECENT PUBLICATIONS OF INTEREST.

- ALDOUS, A. The Tendrills in Australia. Lond., Chatto, 1959. 6s. 6d.
 AUSTRALIAN JUNIOR ENCYCLOPAEDIA: (ed. Charles Barrett, 2nd ed.). Syd., Australian Educational Foundation, 1956. 210s.
 CHAUNCY, Nancen. Tangara "let us set off again": illus. by Brian Wildsmith, Lond., Oxford Univ. Press, 1960. 10s. 6d.
 CLARK, MAVIS T. Pony from Tarella. Melb., Heinemann, 1959. 15s.
 CLARKE, MARJORIE E. H. Sawdust and spangles. Syd., Angus and Robertson, 1959. 17s.
 DALZIEL, K. Penguin road: illus. by Frank Norton. Syd., Angus and Robertson, 1955. 15s. (Story of the Australian National Antarctic Research Expedition at Heard Island.)

Children's Books—continued.

RECENT PUBLICATIONS OF INTEREST—continued.

- DARLING, L. Kangaroos and other animals with pockets. Lond., Angus and Robertson, 1960. 13s. 6d.
- DENNIS, C. J. A book for kids (new ed.). Syd., Angus and Robertson, 1958. 15s.
- DOWNING, BROWNIE. Tinka and his friends: by Brownie Downing and John Mansfield. Edinb., Nelson, 1960. 12s. 6d.
- FENNER, R. The story house: illus. by Elizabeth Macintyre. Syd., Angus and Robertson, 1960. 15s.
- GREENER, L. Moon ahead: by L. Greener and J. Hutchinson. Lond., Penguin, 1957. 2s. 6d.
- GUNN, JEANNIE. The little black princess of the Never-never. Melb., Robertson and Mullens, 1955. 12s. 6d.
- GUNN, J., ed. Dangerous secret: by the girls and boys of the A.B.C. Children's Hour Argonaut's Club. Syd., Australian Broadcasting Commission, 1960. 15s. 6d.
- The humpy in the hills: illus. by Noela Young. Lond., Lutterworth, 1960. 10s. 6d.
- HARRIS, THISTLE Y. Nature problems: a book of nature study for young Australians. Syd., William Brooks, 1960. 21s.
- HEDDLE, ENID M. The boomerang book of legendary tales: chosen, ed. and arranged by Enid Moodie Heddle: decorations by Nancy Parker. Melb., Longmans' Green, 1957. 18s. 9d.
- JOYCE, R. New Guinea. Melb., Oxford Univ. Press, 1960. 4s.
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DIARY OF PRINCIPAL ECONOMIC EVENTS, 1957 to 1960.

The principal economic events for the years 1931 to 1938 were shown on pages 968 to 977 of Official Year Book No. 33, those for the years 1939 to 1944 on pages 1129 to 1141 of Official Year Book No. 36, those for the years 1945 to 1948 on pages 1235 to 1245 of Official Year Book No. 37, those for the years 1949 to 1951 on pages 1331 to 1340 of Official Year Book No. 39, and those for the years 1952 to 1955 on pages 1149 to 1160 of Official Year Book No. 42, while those for the year 1956 were covered by Official Year Book No. 46. To conserve space, some of the items originally shown for the years 1957 and 1958 have been omitted from this issue. Previous issues should be consulted for additional information for these years.

1957.

Throughout 1957, exports of merchandise continued at a high level, and for 1956-57 reached a total of £973 million. During the second half of 1957, there was a tendency for the level to fall off in comparison with 1956. Imports during the early months of the year continued at the low level established following the restrictions imposed in 1956, but, in the later months of the year, rose considerably following an easing of restrictions in the second quarter. Australia's international reserves rose by £142 million to £567 million during the first six months of the year and by a further £23 million to £590 million during the remainder of the year. Internal trade was at a higher level than in 1956.

Drought conditions in the eastern States during 1957 considerably reduced the production of many primary products, the total gross value of primary production in 1957-58 being about 10 per cent. below the 1956-57 level.

During the year, secondary industries continued to expand. Employment in factories rose during the year and there were increases in output of most commodities for which information is available.

Employment in the building and construction, mining and quarrying, and transport industries fell during the year by 13,000, 3,700 and 2,600 respectively. These falls, however, were offset to some extent by increases in employment in factories and in the commercial and professional fields. Overall there was a small increase of 9,000 in the number of civil employees (excluding rural and household domestic employees).

Average nominal wage rates for adult males rose approximately 2 per cent. The main increase occurred in the second quarter following an increase of 10s. a week in the Commonwealth basic wage. Average earnings for employees (male units) rose by about 3 per cent. over the year.

1st February.—Shipping freights to the United Kingdom and European countries rose by 14 per cent.

7th February.—Consolidated Zinc Corporation Ltd. announced £8 million construction programme for a zinc smelter and production of sulphuric acid and superphosphate at Cockle Creek (New South Wales).

1st March.—Commonwealth Savings Bank increased its maximum housing loan from £1,750 to £2,500.

2nd April.—Details of easing of import restrictions released. The ceiling for imports in 1957-58 was raised to £775 million but the modified restrictions operated from 1st April, the start of the quota year.

29th April.—Commonwealth Conciliation and Arbitration Commission announced 10s. increase in Commonwealth Basic Wage to operate from 15th May.

New South Wales Government declared eight districts of the State drought areas.

23rd May.—Duties reduced on over 800 items imported from foreign countries.

24th May.—Australian Loan Council approved a government borrowing programme of £200 million for financial year 1957-58. This included £166,840,000 for State Works and £33,160,000 for housing under agreement between the Commonwealth and States. In addition, borrowing programmes of £89,000,000 were approved for semi-governmental and local authorities.

30th May.—Commonwealth Government passed legislation imposing a levy on wheat-growers to finance more wheat research.

4th June.—Consolidated Zinc Corporation announced a major undertaking in the development of Weipa Bauxite on Cape York peninsula.

22nd June.—Acting Prime Minister officially closed Adaminaby Dam outlet gates and water started filling the Adaminaby Reservoir.

26th June.—Commonwealth Government decided to grant United States additional air traffic rights from Australia to Antarctica, South Africa, and South-east Asia for reciprocal rights across the United States for Australian airlines flying to Europe.

2nd July.—High Court ruled that interstate commercial vehicles could not be compelled to register in New South Wales.

6th July.—Agreement on Commerce between Japan and Australia signed in Tokyo by Japanese Prime Minister and Minister for Foreign Affairs and Australian Minister for Trade, on "most favoured nation" basis.

5th August.—First plant in Australia to produce tinplate, built for flat products division of B.H.P. Co. Ltd. at Port Kembla, was officially opened.

15th August.—British migrants enabled to claim pensions as soon as they arrive in Australia. Previously they had waiting period of 5 years for invalid pensions and 20 years for age pensions.

23rd August.—Full High Court upheld validity of Uniform Taxation Legislation but declared invalid the section giving priority to the Commonwealth.

24th August.—Ansett Transport Industries Ltd. purchased A.N.A. as a going concern for £3.3 million.

25th August.—Of growers who exercised their rights to vote, four out of five voted in favour of the Commonwealth Government's stabilization offer for currants and sultanas.

31st August.—Full High Court upheld the validity of a Victorian tax on commercial vehicles, including those engaged in interstate trade, imposed solely for the maintenance of roads.

3rd–26th September.—Commonwealth and State Budgets for 1957–58 introduced. (For details, see pp. 1142–3 of Official Year Book No. 45.)

14th September.—New South Wales Government gazetted maximum interest rates and minimum deposits applicable under hire purchase and credit sales agreements prescribed in the Hire Purchase (Amendment) Act.

30th September.—Conference of British Commonwealth Finance ministers opened at Mount Tremblant, Canada.

1st October.—Australia entered into double-tax agreement with Canada similar to those existing between Australia and the United Kingdom, and Australia and the United States of America.

17th October.—Applications invited for grant of licences for commercial television stations in the Brisbane, Adelaide, Perth and Hobart areas.

24th October.—Treasurer introduced new banking legislation in House of Representatives. Bills later defeated in Senate (27th November).

4th November.—First shipment of drought-relief wheat left Western Australia for New South Wales and Queensland.

20th November.—Wheat Industry Research Council and Wheat Industry Research Committees appointed.

10th December.—Commonwealth Bank advises trading banks to increase advances.

12th December.—Bill introduced in Victoria to allow cheque facilities to depositors with State Savings Bank of Victoria.

13th December.—Minister for Trade announced that Commonwealth Government had decided to import 1½ million bushels of wheat from Canada into New South Wales.

17th December.—Commonwealth ammunition filling and assembly factory opened at St. Marys, near Sydney.

1958.

Towards the end of 1957, the Australian economy started to feel the effect of the decline in economic activity overseas. Conditions overseas throughout 1958 were such that the prices received for exports, particularly wool and metals, were considerably below those received in 1956 and 1957. Export income was further reduced by the small quantities of wheat and other grains available for export as a result of the drought conditions in the eastern States during 1957.

To help offset the effect of the fall in export income, the Commonwealth Bank, in April, advised banks that there was a need to increase advances, especially in the rural and building industries, and reduced the amount of the special deposits of the trading banks progressively from £340,300,000 in December, 1957, to £265,100,000 in December, 1958. In addition, the Commonwealth Government took action to increase public expenditure, the States were offered an additional £5 million revenue grant, and the 1957-58 borrowing programmes for local authorities were increased by £3 million.

During the year, exports of merchandise were only £738 million compared with £983 million in the same period of 1957. Imports of merchandise in 1958 were £793 million, £41 million greater than in 1957. During the year, international reserves fell by £90 million to £500 million.

A high level of internal trade continued throughout 1958 and increases in sales of most types of commodities were recorded. The small wheat harvest in 1957-58 (97,600,000 bushels) following the 1957 drought and low prices for wool and other primary products considerably reduced the value of primary production. Wool production (1,433,800,000 lb.) in 1957-58 was 130 million lb. lower than in the previous year.

The number of persons in civilian employment (excluding rural and household domestic employees) increased by 29,100 during the year. The average nominal wage rates for adult males rose by approximately 1.7 per cent. during the year. The main increase occurred in the second quarter following an increase of 5s. a week in the Commonwealth basic wage. The interim index of retail prices was 3 per cent. higher in the December quarter of 1958 than a year earlier.

2nd January.—New Zealand imposed import restrictions resulting in temporary setback to expansion of Australia's exports to New Zealand.

14th January.—Qantas commenced first regular round the world air service via San Francisco and New York.

6th February.—Wheat Industry Research Council inaugurated to study soil fertility and problems of production and marketing of wheat.

9th February.—Commonwealth Government sold two coal mines to State Electricity Commission of New South Wales for £1,800,000.

13th February.—Commonwealth Government made special grant of £5 million to States to assist their general financial position and to counter unemployment.

30th March.—Ceiling for import licences to remain fixed at £800 million per annum with some basic raw materials (e.g. petroleum) to be exempted from licensing.

1st April.—New reciprocal Social Services agreement made with United Kingdom came into operation (*see* p. 704).

18th April.—Australia's first nuclear reactor opened at Lucas Heights, near Sydney, by Prime Minister.

22nd April.—Loan of \$25 million at 4½ per cent. was raised in New York.

12th May.—Conciliation and Arbitration Commission announced a Commonwealth Basic Wage increase of 5s.

14th May.—Commonwealth Government undertook to assist the copper industry to maintain Australian price at £330 a ton, partly by duty, partly by bounty.

5th June.—Australian Loan Council approved of a borrowing programme for the financial year 1958-59 of £210,000,000, including £35,810,000 for housing under Commonwealth-State Housing Agreement and £174,190,000 for State Works. Borrowing programmes for semi-governmental bodies and local authorities amounting to £95,000,000 were also approved.

1st July.—Commonwealth Bank at request of Commonwealth Government made available £10 million credit to New Zealand at 4½ per cent.

4th July.—Netherlands Government raised loan of £1,354,000 from United States Government to help support co-operative housing project for Dutch migrants to Australia. Additional finance to be raised in Australia and Holland to total of £8 to £12 million in next ten years.

17th July.—Agreement reached between New South Wales, Victoria, South Australia and Commonwealth on Snowy Mountains and Murray Waters.

31st July.—Minister for Trade announced easing of restrictions on imports of capital equipment from dollar areas and exemption from licensing on other items.

5th August–2nd October.—Commonwealth and State Budgets for 1958–59 introduced. (For details, see pp. 1191–2 of Official Year Book No. 46.)

13th September.—Prime Minister opened Tumut Ponds dam on the Snowy River Scheme.

8th October.—First issue of new "Special" Bonds of £10 units, with a limit of £5,000, bearing variable rates of interest and redemption bonuses according to the period held.

High Court ruled Queensland road transport levies valid.

9th October.—Victorian State Electricity Commission $5\frac{1}{2}$ per cent. loan for 7, 10, or 25 years undersubscribed by £800,000 and Queensland S.E.C. loan of $5\frac{3}{4}$ per cent. undersubscribed by £115,000.

15th October.—£Stg.15,000,000 Loan floated in London, the first Australian loan floated in London for 19 years. At $5\frac{1}{2}$ per cent., issued at £98 Stg., this loan was oversubscribed.

1st November.—Savings Bank interest raised $\frac{1}{4}$ per cent. to 3 per cent. on balances up to £2,000.

7th November.—Work commenced on new £30,000,000 power station at Wangi, N.S.W. with a planned capacity of 60,000 kW.

10th November.—The full bench of the Industrial Commission granted marginal increases of 15–25 per cent. to steel workers.

1959.

Early in 1959, it was evident that the recession overseas in 1958 had not seriously affected the Australian economy. The prices received for wool, which had been falling during 1958, commenced to rise again. Production and building activity were still expanding. There were also indications of an improvement in the employment position. In the course of the year there was an increase of more than £150 million in exports over the previous year. During the year, international reserves increased by £47 million. The 1958–59 wheat harvest of 215 million bushels was more than double that of the previous year which had been seriously affected by drought conditions.

The expansion of internal trade was maintained. Retail sales of motor vehicles, petrol, etc., were 11 per cent. higher than in 1958 and other commodities over 5 per cent. higher. Sales under hire purchase agreements again increased and the balances outstanding under agreements increased by £62 million compared with an increase of £72,700,000 in 1958.

The number of persons in civilian employment increased by 73,800 during the year compared with an increase of 36,400 in 1958. Increased employment was recorded in all major industries except the mining and quarrying industry where the fall of recent years was continued. The number of persons in receipt of unemployment benefit fell by 5,000 during the year.

Throughout the year industrial production continued to expand. The lower level of production of clothing and textiles in 1958 continued into the early months of 1959, but during the later months of the year there was a considerable improvement in the output of the clothing industry. Building activity was rising rapidly during the year.

In June, the Commonwealth Basic Wage was increased by 15s. a week for males and 11s. 3d. a week for females. This was followed by an increase in margins for skill (28 per cent. in most industries) in December. As a result the minimum weekly wage rate index increased by 7 per cent. during the year and average weekly earnings increased by 5 per cent. Retail prices, measured by the Consumer Price Index, rose by 2 per cent.

1st January.—New South Wales Acts, Industrial Arbitration (Female Rates) Amendment Act 1958, providing for equal pay for male and female employees performing work of same or like nature, and Annual Holidays Act 1944–1958, providing for three weeks annual holidays for all New South Wales workers under State awards, became operative.

19th January.—Australian Exchange Control Regulations eased to allow of payment for imports in convertible sterling or any major non-sterling currencies instead of dollars and sterling, and other adjustments removing differences between remittances to dollar area and other non-sterling countries.

24th January.—Contracts let by Electricity Commission of New South Wales for construction of new £14,500,000 power station at Vales Point, Lake Macquarie.

29th January.—Export controls lifted on 25 items, including newsprint, copra, margarine and iron and steel products.

7th February.—Queensland Government lifted price controls on all items other than basic foods and groceries.

15th February.—Seven-man committee set up to examine the case for the introduction of decimal currency into Australia.

18th February.—Commonwealth Government maintained allocation for grants to States for works and housing (*see* 5th June, 1958) at £210,000,000 but raised local government ceiling for borrowing from £16,500,000 to £20,500,000.

25th February.—Australia's first government-sponsored trade mission to North America left to examine and develop export markets.

4th March.—Premiers' Conference opened. Conference accepted Commonwealth plan for roads and bridges involving an expenditure of £720,000,000 over next five years, of which Commonwealth was to contribute £250,000,000.

23rd March.—Republic of China sent first trade mission to Australia led by Chairman of Bank of Taiwan.

2nd April.—Licensing restrictions on dollar imports removed from 330 items. Minister for Trade left for trade talks in Washington.

6th April.—First government-sponsored New Zealand trade mission to visit Australia arrived in Sydney.

16th April.—High Court of Australia ruled that provisions of Commonwealth Re-establishment and Employment Act giving priority in employment to ex-servicemen were invalid because of lapse of time since end of 1939–45 War.

23rd April.—Royal assent given to Reserve Bank Act, Commonwealth Banks Act, Banking Act and Banking (Transitional Provisions) Act. (*See* p. 755.)

Production of lead at Mt. Isa reduced by 25 per cent. to help world lead position. Corresponding increase in copper production.

1st May.—Commonwealth government decided to increase subsidy on oil search by £1,000,000 a year for each of next three years.

4th May.—T.1 underground power station, first major station of Snowy Mountains Scheme, commenced operation with output capacity of 160,000 kW.

16th May.—Indian railways mission visited Australia as guest of Commonwealth Government to arrange for purchase of wide range of railway equipment.

20th May.—New Zealand eased import restrictions (*see* 2nd January, 1958). Market for Australian canned and dried fruits in New Zealand expected to increase by 16 per cent. as a result.

1st June.—Migration Act 1958, providing *inter alia* for abolition of Dictation Test, and adoption of entry permit system (*see* p. 325), became operative.

5th June.—Commonwealth Conciliation and Arbitration Commission, in majority decision on Basic Wage Inquiry, increased Federal basic wage by 15s. for males and 11s. 3d. for females from first pay period after 11th June. Federal awards higher than State awards for first time in 20 years.

8th June.—£10,000,000 blast furnace began production at Port Kembla with a capacity of 600,000 tons of pig iron a year, making a total of 3,000,000 tons for Australia.

9th June.—Working hours in State-owned coal mines in New South Wales reduced from 40 to 37½ a week.

24th June.—Premiers' Conference accepted Commonwealth proposal for new plan of tax reimbursements based on population and wage levels, grants to be increased from £225,750,000 to £244,500,000 for 1959–60.

Loan Council approved of borrowing programme for 1959-60 of £220,000,000 (£183,900,000 for States, £36,100,000 for Commonwealth-State Housing). Local and semi-governmental borrowing ceiling fixed at £100,000,000.

26th June.—Expert committee on coal formed to advise Government on all aspects of uses of coal.

29th June.—Australia's quota to International Monetary Fund increased from \$200,000,000 to \$300,000,000.

30th June.—Fourteen mile, £19,000,000, Eucumbene-Tumut tunnel in Snowy Mountains Hydro-electric Scheme completed four months ahead of schedule.

2nd July.—S.S. *Delfino* left Sydney with 30,000 live sheep for export to United States of America, the first significant shipment of this kind ever made.

First 707 jet-liner arrived in Sydney for Qantas, part of major re-equipment programme on overseas services and conversion to jet-planes of major internal air-lines in Australia.

19th July.—Remaining undistributed profits of Joint Organization marketing of wool (about £2,400,000) transferred to Wool Research Fund.

1st August.—Import restrictions further eased by about £50,000,000 annually (*see also* 2nd April) and licensing discrimination removed from almost all imports from dollar areas.

11th August.—Commonwealth Budget for 1959-60 introduced into House of Representatives.

In 1958-59, receipts of the Consolidated Revenue Fund (excluding self-balancing items) were £1,287,882,000. The expenditure (excluding self balancing items and the payment to the Loan Consolidation and Investment Reserve) amounted to £1,259,935,000. There was thus £27,947,000 available for payment to the Loan Consolidation and Investment Reserve. The main items of revenue were (1957-58 receipts shown in parentheses):—Income taxes, £608,700,000 (£650,400,000); Excise Duties, £237,200,000 (£232,600,000); Customs Duties, £71,700,000 (£71,700,000); and Sales Tax, £143,600,000 (£137,800,000). The main items of expenditure were Payments to or for the States, £286,600,000 (£270,600,000); Social and Health Services, £278,200,000 (£247,500,000); Defence Services, £152,000,000, excluding £37,300,000 provided from Loan Fund, (£185,100,000); War and Repatriation Services, £128,200,000 (£127,900,000); and Capital Works and Services, £132,400,000 (£123,500,000).

The Budget for 1959-60 provided for an estimated expenditure of £1,645,300,000, of which £1,348,300,000 would be provided from the Consolidated Revenue Fund and £297,000,000 from the Loan Fund. In addition it was expected that £37,000,000 would be available for payment to the Loan Consolidation and Investment Reserve.

8th September.—1959-60 Budget introduced into Victorian Legislative Assembly. In 1958-59, expenditure exceeded revenue by £2,500,000. The deficit on the Railways was £3,900,000 and on the State Coal Mines £200,000. There was a surplus of £1,600,000 on General Account. The Budget for 1959-60 provided for a total expenditure of £165,100,000. It was estimated that revenue would be £163,900,000 leaving a deficit of £1,200,000. It was estimated that the deficit on the Railways would be £5,200,000 after providing for debt charges.

16th September.—1959-60 Budget introduced into New South Wales Legislative Assembly. During 1958-59, the transactions of the Consolidated Revenue Fund, Railways, Metropolitan and Newcastle Transport Services and Sydney Harbour Services resulted in a surplus of £43,000. After providing for debt charges, there were deficits of £6,400,000 on the Railways and £1,800,000 on the Metropolitan and Newcastle Transport Services. The 1959-60 Budget provided for an overall surplus of £58,000. After meeting debt charges, it was estimated that there would be deficits of £6,000,000 on the Railways and £2,300,000 on the Metropolitan and Newcastle Transport Services.

22nd September.—1959-60 Budget introduced into Western Australian Legislative Assembly. Financial transactions for the year 1958-59 resulted in a deficit of £1,700,000. For 1959-60, it was estimated that expenditure would be £64,800,000 and revenue £63,300,000 resulting in a deficit of £1,500,000.

24th September.—1959-60 Budget introduced into South Australian House of Assembly. In 1958-59, revenue amounted to £72,700,000 and expenditure to £73,700,000 leaving a deficit of £1,000,000. For 1959-60, it was estimated that expenditure would be £80,300,000 and revenue £79,500,000 thus leaving a deficit of £800,000.

29th September.—1959–60 Budget introduced into Queensland Legislative Assembly. In 1958–59, receipts of the Consolidated Revenue Fund were £93,800,000. Expenditure was £95,000,000 leaving a deficit of £1,200,000. For 1959–60, it was estimated that the Budget would be approximately balanced with revenue and expenditure both amounting to £101,900,000.

1959–60 Budget introduced into Tasmanian House of Assembly. The transactions of the Consolidated Revenue Fund in 1958–59 resulted in a deficit of £900,000. Receipts of the Consolidated Revenue Fund totalled £21,900,000 and expenditure £22,800,000. For 1959–60 it was estimated that expenditure would be £24,700,000 and revenue £24,100,000 leaving a deficit of £600,000.

15th October.—Approval of new import levels by Japanese government expected to increase Australia's wool exports substantially.

16th October.—New trade agreement with Germany provided for increases in exports of meat, grain, fruit, and wine.

30th October.—£15,000,000 special deposits (first for 2½ years) called in from Trading Banks by Commonwealth Bank; (further £20,000,000 called in 30th November, and more calls anticipated next year).

16th November.—Currency restrictions for Australians travelling abroad relaxed substantially. Limit £2,000 a year to any part of the world, an increase of 25 per cent. for sterling areas and 150 per cent. for all other areas.

25th November.—First issue of 3 per cent. seasonal Treasury Notes, totalling £12,100,000. Further issues to be made fortnightly until March, 1960.

26th November.—Full Bench of New South Wales State Industrial Commission, interpreting Industrial Arbitration (Female Rates) Amendment Act, 1958 (assented to 31st December, 1958), provided for 5 per cent. annual increase in female wages from 1st January, 1960, to 1st January, 1963.

27th November.—Commonwealth Conciliation and Arbitration Commission in judgment on Metal Trades case, granted increase of 28 per cent. in margins to fitters and other skilled metal trades employees. Followed by similar awards by other tribunals.

9th December.—Contracts let for construction of new £120,000,000 power station at Hazlewood (Vic.) planned to double amount of electricity available in Victoria.

1960.

The year 1960 opened in a period of rapidly increasing demand. This became stronger during the early months of 1960, when the increases in wage margins granted towards the end of 1959 became effective. Retail sales of motor vehicles, petrol, etc., were at a level of 20 to 25 per cent. above the previous year, and sales of other commodities at about 10 per cent. higher. In addition, expenditure on capital equipment was at a high level.

This high level of internal demand continued throughout the first three quarters, but slackened during the last quarter, after action had been taken by the Commonwealth Government and the Reserve Bank to restrict credit.

Accompanying these conditions, there were increases in prices, shortages of labour in many industries, and, after the lifting of restrictions in February, increased imports. During the year, the Consumer Price Index increased by 4.5 per cent. compared with an increase of 1.8 per cent. in 1959. At the end of June, the number of persons in civilian employment was 106,700 greater than in June, 1959. The increases over the same period in the main industrial groups were: Factories 56,800, Retail Trade 10,300, Other Commerce and Finance 15,800, and Public Authority (n.e.i.) and Professional 17,500. Up till October, too, the number of persons on unemployment benefit was falling steadily, and the number of vacancies registered with the Department of Labour and National Service was rising. Imports of merchandise increased from £429,000,000 in the six months ended December, 1959, to £495,600,000 in the next six months, and to £561,200,000 in the six months ended December, 1960.

The Commonwealth Government in February removed practically all the remaining restrictions on imports, and intervened in the basic wage case to counsel against granting further general wage increases. The Reserve Bank made a further call up of deposits to the Statutory Reserve Accounts to reduce excessive monetary liquidity in the economic system.

With the stated object of curbing demand and preventing further increases in prices and costs, the Commonwealth Budget in August provided for an increase in income taxes and a cash surplus of £15,500,000 for the 1960-61 financial year. The Reserve Bank also asked banks to make immediate and significant reductions in the rate of new lending and to guard against providing finance for "speculative activities".

Later, in November, the Commonwealth Government in conjunction with the Reserve Bank introduced a further series of economic measures. These provided for a further tightening of the credit restrictions, an increase in the sales tax rate on motor cars from 30 per cent. to 40 per cent., and an increase in the maximum interest rate on bank overdrafts to 7 per cent.

Following the lifting of restrictions in February, imports had increased at a rapid rate. During the year, imports amounted to £1,056,800,000 compared with £826,300,000 in 1959. Exports, however, declined, partly as a result of lower prices being received for wool, butter and some other export commodities. Exports of merchandise during the year were £874,900,000 compared with £892,500,000 in 1959. During 1960, international reserves fell by £170,900,000 to £376,300,000.

Weather conditions throughout the year were generally favourable for primary production. The wheat harvest of 199 million bushels in 1959-60 was 16 million bushels less than the near record harvest of the previous year, and the 1960-61 wheat crop (estimated at 270 million bushels) exceeded the previous record by more than 50 million bushels. Wool production in 1960-61 was second only to that of the previous year—1,632 million lb. compared with 1,680 million lb.

During the first three quarters of the year, industrial production continued to expand—very rapidly in some instances. There were significant increases in the production of iron and steel and some building materials, and in the generation of electricity. However, during the last quarter of the year, there was evidence of a fall in the output of many industries. Building activity was at a higher level than in the previous year, but in December there were signs of slackening and approvals for new building fell considerably.

14th January.—New exchange regulations placed dollar currencies on same basis as other non-sterling currencies. Money orders now able to be sent to dollar areas. Dollar earnings by Australians no longer subject to compulsory repatriation.

16th January.—Commonwealth Banks Act 1959 establishing Commonwealth Banking Corporation, Banking Act 1959 regulating banking in Australia, and Reserve Bank Act 1959 replacing Commonwealth Bank of Australia by Reserve Bank of Australia, proclaimed.

19th January.—New £17,000,000 catalytic cracking plant, primarily for the production of motor spirit, to be built at Clyde by group of oil companies as part of projects totalling £22,000,000.

2nd February.—Commonwealth Cash Loan of £45,000,000 opened, issued at £99½ to par, interest at from 4 to 5 per cent. Closed 17th February, undersubscribed by £4.7 million.

10th February.—Australian loan of £12,000,000 sterling opened in London, issued at £99, interest at 5½ per cent.; amount raised in full.

13th February.—Statutory reserve deposit ratio raised by Reserve Bank from 16½ to 17½ per cent. Australia and Canada signed a new trade Agreement replacing the 1931 agreement. The new agreement would give both countries additional concessions and the right to invoke anti-dumping legislation; a wide variety of Australian exports would receive increased preference.

23rd February.—Items comprising 90 per cent. of Australia's present imports exempted from import licensing provisions.

9th March.—New Zealand relaxed import restrictions affecting some 300 items of Australian exports to that country, making an increase of 15 to 20 per cent. in licences for Australian goods.

14th March.—Reserve Bank made a further call up of £5,300,000 of trading bank special accounts, making a total of £59,400,000, since call-ups began in October.

16th March.—Commonwealth negotiated loan in Switzerland of 60,000,000 Swiss francs (about £A.6,000,000) issued at 99 francs per 100, with interest at 4½ per cent.; fully subscribed.

1st April.—Three oil companies announced plans for the joint building of Australia's first major lubricating oil refinery at Kurnell, New South Wales, at a cost of about £13,000,000. Another company on 3rd May, announced plans for a similar plant at Kwinana, Western Australia to cost £10,000,000.

7th April.—Broken Hill Pty. Ltd. announced the opening of new cold-rolling stainless steel mill at Unanderra, with a capacity of 15,000 tons a year.

Japanese import controls eased to allow of 50 per cent. increase in exports of wool, wheat and coal to Japan.

8th April.—Australia's subscription to the International Bank for Reconstruction and Development increased from \$400,000,000 to \$533,000,000, and to the International Monetary Fund from \$300,000,000 to \$400,000,000.

12th April.—Commonwealth Arbitration Commission decided not to increase basic wage, the first time since September, 1953, that it had not been raised following an inquiry.

19th April.—Commonwealth floated \$25,000,000 loan in New York, issued at \$97½ with interest at 5½ per cent., fully subscribed.

22nd April.—Trade mission, consisting of 39 members, led by Sir Douglas Copland, the largest mission to leave Australia, left for Canada and the United States.

24th April.—Government asked for parliamentary approval for Australia to become a foundation member of the International Development Association, an affiliate of the International Bank for Reconstruction and Development designed to assist industrial development of "less developed" countries. (Approving Act assented to 31st May.)

4th May.—Commonwealth Cash and Conversion loan opened, issued at £99½ to £100, with interest at from 4 to 5 per cent.; closed 24th May, with £25,000,000 cash portion under-subscribed by £4,400,000.

17th May.—First National Export Convention opened at Canberra as part of National Export Drive.

1st June.—All Trading Banks increased service and miscellaneous charges from to-day.

24th June.—Loan Council met in Canberra and approved of borrowing programme for 1960–61 of £230,000,000 (£192,800,000 for States, £37,200,000 for Commonwealth State Housing). Local and semi-governmental borrowing ceiling fixed at £106,000,000. In addition, it approved borrowings by the Commonwealth in the United States of America of \$30,000,000 on behalf of Qantas Empire Airways Limited and of \$2,000,000 on behalf of Trans-Australia Airlines.

3rd July.—Following the joining by the United Kingdom of the European Free Trade Association, United Kingdom preference guarantees to be waived on nine products, including lead and zinc.

22nd July.—Oversea shipping rates on exports increased by 6 per cent. Import rates to rise by 7½ per cent. from 1st October.

8th August.—Reserve Bank asked banks to make immediate and significant cut in rate of new lending and guard against providing finance for "speculative activities".

11th August.—Oil refinery planned for Port Alma, Queensland, at cost of £15,000,000.

13th August.—Commonwealth Statistician issued new Consumer Price Index.

16th August.—Commonwealth Budget for 1960–61 introduced into House of Representatives.

In 1959–60, receipts of the Consolidated Revenue Fund (excluding self-balancing items) were £1,431,800,000. The expenditure (excluding self-balancing items and the payment of £41,400,000 to the Loan Consolidation and Industrial Reserve) amounted to £1,390,400,000. The main items of revenue (1958–59 receipts shown in parentheses) were: Income Taxes £671,300,000 (£608,700,000), Excise Duties £252,400,000 (£237,200,000); Customs Duties £84,400,000 (£71,700,000); and Sales Tax £164,200,000 (£143,600,000). The main items of expenditure were: Payments to or for the States £321,400,000 (£286,600,000); Social and Health Services £299,400,000 (£278,200,000); Defence Services (excluding £12,000,000 and £37,300,000 provided from Loan Fund in 1959–60 and 1958–59 respectively) £181,600,000 (£152,000,000); War and Repatriation Services £137,500,000 (£128,500,000) and Capital Works and Services £142,100,000 (£132,400,000).

The Budget for 1960-61 provided for an estimated expenditure of £1,670,800,000 of which £1,358,100,000 would be provided from the Consolidated Revenue Fund and £312,700,000 from the Loan Fund. In addition, it was expected that £125,700,000 would be available for payment to the Loan Consolidation and Investment Reserve.

17th August.—New Tariff Bills introduced in House of Representatives to give short-term assistance to industries by imposing temporary tariffs in an emergency. (Assented to 5th September.)

19th August.—Report of Committee on Decimal Coinage tabled in House of Representatives. Committee unanimously in favour of decimal system.

26th August.—Five-man delegation left for South America to survey trade prospects in eight American countries.

1st September.—Commonwealth Government accepted offer from Consolidated Zinc of £10,900,000 for Bell Bay aluminium works.

6th September.—1960-61 Budget introduced into South Australian House of Assembly. In 1959-60, revenue amounted to £80,300,000 and expenditure to £80,600,000, leaving a deficit of £300,000. For 1960-61, it was estimated that expenditure would be £85,500,000 and revenue £85,800,000, thus leaving a surplus of £300,000.

7th September.—Commonwealth £30,000,000 Cash Loan opened, issued at £98½ to par, with interest at from 4½ to 5 per cent. Closed 22nd September, oversubscribed by £3,000,000.

14th September.—1960-61 Budget introduced into New South Wales Legislative Assembly. During 1959-60, the transactions of the Consolidated Revenue Fund, Railways, Metropolitan and Newcastle Transport Services and Sydney Harbour Services resulted in a surplus of £70,000. After providing for debt charges, there were deficits of £4,100,000 on the Railways and £2,300,000 on the Metropolitan and Newcastle Transport Services. The 1960-61 Budget provided for an overall surplus of £22,000. After meeting debt charges, it was estimated that there would be a deficit of £1,900,000 on the Railways and £3,000,000 on the Metropolitan and Newcastle Transport Services.

15th September.—1960-61 Budget introduced into Victorian Legislative Assembly. In 1959-60, Revenue exceeded expenditure by £300,000. The deficit on the Railways was £4,600,000 and on the State Coal Mines £200,000. There was a surplus of £5,100,000 on General Account. The budget for 1960-61 provided for a total expenditure of £181,400,000. It was estimated that revenue would be £181,500,000 leaving a surplus of £100,000. It was estimated that the deficit on the railways would be £4,200,000 after providing for debt charges.

20th September.—1960-61 Budget introduced into Tasmanian House of Assembly. The transactions of the Consolidated Revenue Fund in 1959-60 resulted in a deficit of £1,000,000. Receipts of the Consolidated Revenue Fund totalled £24,300,000 and expenditure £25,300,000. For 1960-61, it was estimated that expenditure would be £27,200,000 and revenue £26,800,000 leaving a deficit of £400,000.

22nd September.—1960-61 Budget introduced into Western Australian Legislative Assembly. Financial transactions for the year 1959-60 resulted in a deficit of £1,400,000. For 1960-61, it was estimated that expenditure would be £69,800,000 and revenue £69,000,000 resulting in a deficit of £800,000.

27th September.—Commonwealth floated \$25,000,000 (about £A.11,000,000) loan in New York, issued at 98, with interest at 5½ per cent.,; fully subscribed.

29th September.—1960-61 Budget introduced into Queensland Legislative Assembly. In 1959-60, receipts of the Consolidated Revenue Fund were £103,100,000. Expenditure was £103,300,000 leaving a deficit of £200,000. For 1960-61, it was estimated that expenditure would amount to £110,100,000 and revenue to £109,900,000 leaving a deficit of £200,000.

7th October.—Navigation charges to airlines for use of airport facilities raised.

29th October.—Commonwealth appointed committee to enquire into wool marketing methods (see also 12th December).

10th November.—New South Wales Government introduced Company Law Amendment Bill, the first of a series to provide for a uniform Company Law throughout Australia.

16th November.—New economic measures introduced, designed to reduce excessive internal demand and safeguard Australia's overseas funds position. Credit restrictions were tightened, sales tax on cars raised to 40 per cent., bank overdraft rate raised to 7 per cent., and tax deductions of interest paid on borrowed money abolished. It was also proposed that life assurance companies, superannuation funds, etc., should be required to have at least 30 per cent. of their investments in government securities.

24th November.—Reserve Bank issued a statement on policy of bank and advice to trading Banks on selective restriction of advances.

5th December.—Japanese trade ship berthed in Sydney.

10th December.—Rise to $3\frac{1}{2}$ per cent. in Savings Bank interest rates announced.

12th December.—Graziers supported proposal to introduce reserve price for wool at auction sales.

20th December.—New South Wales Industrial Commission granted industry allowance of 15s. a week to building workers.

CHRONOLOGICAL TABLE.

CHRONOLOGICAL TABLE OF CHIEF EVENTS SINCE THE ESTABLISHMENT OF SETTLEMENT IN AUSTRALIA.

NOTES.—For each earlier year, this Table rarely contains more than two or three items; for recent years, however, in order to provide a wide cover of events, etc., it includes a much greater number. Both the nature of the Table and considerations of space render necessary a continual reduction in these items, and for more information the reader should therefore consult earlier issues.

The Government was centralized in Sydney, New South Wales, up to 1825, when Tasmania (Van Diemen's Land) was made a separate colony. In the Table, the names now borne by the States serve to indicate the localities.

Year.

- 1788 N.S.W.—Arrival of "First Fleet", under Captain Arthur Phillip, at Botany Bay. Land in vicinity being found unsuitable for settlement, the expedition moved to Sydney Cove, and formal possession of the colony was taken on 26th January. Formal proclamation of colony and establishment of regular government on 7th February.
- 1789 N.S.W.—First wheat harvested at Parramatta, near Sydney. Discovery of Hawkesbury River.
- 1790 N.S.W.—"Second Fleet" reached Port Jackson. Landing of the New South Wales Corps.
- 1791 N.S.W.—Arrival of "Third Fleet". Territorial seal brought by Governor King.
- 1792 N.S.W.—Visit of *Philadelphia*, first foreign trading vessel.
- 1793 N.S.W.—First free immigrants arrived in *Bellona*. First Australian church opened at Sydney. Tas.—D'Entrecasteaux discovered the Derwent River.
- 1794 N.S.W.—Establishment of settlement at Hawkesbury River.
- 1795 N.S.W.—Erection of the first printing press at Sydney. Descendants of strayed cattle discovered at Cowpastures, Nepean River, a locality destined to become an important centre of the dairying industry.
- 1796 N.S.W.—First Australian theatre opened at Sydney. Coal discovered by fishermen at Newcastle.
- 1797 N.S.W.—Introduction of merino sheep from Cape of Good Hope.
- 1798 Tas.—Insularity of Tasmania proved by voyage of Bass and Flinders.
- 1800 N.S.W.—Hunter River coal-mines worked. First customs house in Australia established at Sydney.
- 1802 Vic.—Discovery of Port Phillip by Lieut. Murray. Qld.—Discovery of Port Curtis and Port Bowen by Flinders. S.A.—Discovery of Spencer and St. Vincent Gulfs by Flinders.
- 1803 N.S.W.—First Australian wool taken to England by Captain Macarthur. Issue of *The Sydney Gazette*, first Australian newspaper. Vic.—Attempted settlement at Port Phillip by Collins. Discovery of Yarra by Grimes. Tas.—First settlement formed at Risdon by Lieut. Bowen.
- 1804 Vic.—Abandonment of settlement at Port Phillip. Tas.—Foundation of settlement at Hobart by Collins.
- 1805 N.S.W.—First extensive sheep farm established at Camden by Captain Macarthur.
- 1806 Tas.—Settlement at Launceston.
- 1807 N.S.W.—First shipment of merchantable wool (245 lb.) to England.
- 1808 N.S.W.—Deposition of Governor Bligh.
- 1809 N.S.W.—Free school established.
- 1810 N.S.W.—Post Office officially established at Sydney.
- 1813 N.S.W.—Passage across Blue Mountains discovered by Blaxland, Lawson and Wentworth. Macquarie River discovered by Evans.

Year.

- 1814 N.S.W.—Flinders suggested the name “Australia” instead of “New Holland”.
Creation of Civil Courts.
- 1815 N.S.W.—Lachlan River discovered by Evans. Tas.—Arrival of first immigrant ship
with free settlers.
- 1816 N.S.W.—Sydney Hospital opened.
- 1817 N.S.W.—Oxley’s first exploration inland. Discovery of Lakes George and Bathurst
and the Goulburn Plains by Meehan and Hume. First bank in Australia—
Bank of New South Wales—opened at Sydney.
- 1818 N.S.W.—Liverpool Plains and the Peel, Hastings and Manning Rivers discovered
by Oxley, and Port Essington (N.T.) by Captain King.
- 1819 N.S.W.—First savings bank in Australia opened at Sydney.
- 1821 Tas.—Establishment of penal settlement at Macquarie Harbour.
- 1822 N.S.W.—Formation of Agricultural Society of New South Wales.
- 1823 N.S.W.—New South Wales Judicature Act passed. Discovery of gold at Fish
River by Assistant Surveyor McBrien. Qld.—Brisbane River discovered by
Oxley.
- 1824 N.S.W.—Constituted a Crown colony. Executive Council formed. Establishment
of Supreme Court at Sydney, and introduction of trial by jury. First Australian
Enactment (Currency Bill) passed by the Legislative Council. First manufacture
of sugar. Vic.—Hume and Hovell, journeying overland from Sydney, arrived
at Corio Bay. Qld.—Penal settlement founded at Moreton Bay (Brisbane).
Port Dundas settlement formed at Melville Island, N.T.
- 1825 Tas.—Van Diemen’s Land (Tasmania) proclaimed a separate colony. Qld.—Major
Lockyer explored Brisbane River to its source and discovered coal.
- 1826 N.S.W.—Settlement in Illawarra district. Vic.—Settlement at Corinella, Western
Port, formed by Captain Wright.
- 1827 Qld.—Darling Downs and the Condamine River discovered by Allan Cunningham.
W.A.—Military settlement founded at King George Sound by Major Lockyer.
First official claim of British sovereignty over all Australia.
- 1828 N.S.W.—Second Constitution. First census. Sturt’s expedition down Darling
River. Richmond and Clarence Rivers discovered by Captain Rous. Vic.—
Abandonment of settlement at Western Port. Qld.—Cunningham discovered
a route from Brisbane to the Darling Downs and explored Brisbane River.
- 1829 N.S.W.—Sturt’s expedition down Murrumbidgee River. W.A.—Foundation of
settlement at Swan River. Foundation of Perth.
- 1830 N.S.W.—Sturt, voyaging down Murrumbidgee and Murray Rivers, arrived at Lake
Alexandrina. Tas.—Black line organized to force aborigines into Tasman’s
Peninsula but failed. Small remnant subsequently (1830 to 1835) persuaded
to settle on Flinders Island.
- 1831 N.S.W.—Mitchell’s explorations north of Liverpool Plains. SS. *Surprise*, first
steamship built in Australia, launched at Sydney. First coal shipped from
Australian Agricultural Company’s workings at Newcastle, N.S.W. First
assisted immigration to N.S.W. S.A.—Wakefield’s first colonization com-
mittee. W.A.—Appointment of Executive and Legislative Councils.
- 1832 N.S.W.—State Savings Bank established.
- 1833 N.S.W.—First school of arts established at Sydney.
- 1834 N.S.W.—First settlement at Twofold Bay. Vic.—Settlement formed at Portland Bay
by Henty Brothers. S.A.—Formation of the South Australian Association.
W.A.—Severe reprisals against Murray River natives at Pinjarra for continued
attacks on settlers.
- 1835 Vic.—John Batman arrived at Port Phillip; foundation of Melbourne.

Year.

- 1836 N.S.W.—Mitchell's overland journey from Sydney to Cape Northumberland (S.A.). Vic.—Proclamation of Port Phillip district as open for settlement. S.A.—Settlement founded at Adelaide under Governor Hindmarsh.
- 1837 N.S.W.—Appointment in London of Select Committee on Transportation. Vic.—First overlanders from Sydney arrived at Port Phillip.
- 1838 N.S.W.—Discontinuance of assignment of convicts. Qld.—Settlement of German missionaries at Brisbane—first free colonists. S.A.—“Overlanding” of cattle from Sydney to Adelaide along the Murray route by Hawden and Bonney. Settlement at Port Essington, Northern Territory, formed by Captain Bremer.
- 1839 N.S.W.—Gold found at Vale of Clwydd by Count Strzelecki. S.A.—Lake Torrens discovered by Eyre. Port Darwin discovered by Captain Stokes. W.A.—Murchison River discovered by Captain Grey.
- 1840 N.S.W.—Abolition of transportation to New South Wales. Vic.—Determination of northern boundary. Qld.—Penal settlement broken up and Moreton Bay district thrown open. S.A.—Eyre began his overland journey from Adelaide to King George Sound.
- 1841 N.S.W.—Gold found near Hartley. W.A.—Completion of Eyre's overland journey from Adelaide to King George Sound. New Zealand proclaimed a separate colony.
- 1842 N.S.W.—Incorporation of Sydney. Vic.—Incorporation of Melbourne. S.A.—Discovery of copper at Kapunda.
- 1843 N.S.W.—First Representative Constitution (under Act of 1842). Qld.—Moreton Bay granted legislative representation as a distinct electoral division.
- 1844 Qld.—Leichhardt's expedition to Port Essington (N.T.). S.A.—Sturt's last expedition inland.
- 1845 N.S.W.—Mitchell's explorations on the Barcoo. Qld.—Explorations by Mitchell and Kennedy. S.A.—Discovery of the Burra copper deposits. Sturt discovered Cooper's Creek.
- 1846 N.S.W.—Initiation of meat-preserving. Qld.—Foundation of settlement at Port Curtis. S.A.—Proclamation of North Australia.
- 1847 N.S.W.—Iron-smelting commenced near Berrima. Overland mail established between Sydney and Adelaide. Qld.—Explorations by Leichhardt, Burnett and Kennedy.
- 1848 N.S.W.—National and Denominational School Boards established. Qld.—Leichhardt's last journey. Chinese brought in as shepherds.
- 1849 N.S.W.—Indignation of colonists at arrival of convict ship *Hashemy*. Exodus of population to gold-fields of California. Vic.—*Randolph* prevented from landing convicts. Qld.—Assignment of *Hashemy* convicts to squatters on Darling Downs. W.A.—Commencement of transportation to Western Australia.
- 1850 N.S.W.—Final abolition of transportation. Sydney University founded. Vic.—Gold discovered at Clunes. Representative government granted. S.A.—Representative government granted. W.A.—Pearl oysters found by Lieut. Helpman at Saturday Island Shoal. Tas.—Representative government granted.
- 1851 N.S.W.—Payable gold discovered by Hargreaves at Lewis Ponds and Summerhill Creek. Vic.—Port Phillip created an independent colony under the name of Victoria. Discovery of gold in various localities. W.A.—Proclamation of Legislative Council Act.
- 1852 N.S.W.—Arrival of *Chusan*, first P. and O. mail steamer from England. Tas.—Meeting of first elective Council protested against transportation. Payable gold discovered at The Nook, near Fingal, and at Nine Mile Springs.
- 1853 Tas.—Abolition of transportation. Vic.—Melbourne University founded.
- 1854 Vic.—Opening of first Australian railway—Flinders Street to Port Melbourne. Riots on Ballarat gold-fields. Storming of the Eureka Stockade, 3rd Dec. Telegraph first used.

Year

- 1855 N.S.W.—Opening of railway—Sydney to Parramatta. Mint opened.
- 1856 N.S.W.—Pitcairn Islanders placed on Norfolk Island. W.A.—A. C. Gregory's expedition in search of Leichhardt.
Responsible Governments in N.S.W., Vic., S.A. and Tas. (Act of 1855).
- 1857 N.S.W.—Select Committee on Federation. Vic.—Manhood suffrage and vote by ballot. S.A.—Passage of Torrens' Real Property Act.
- 1858 N.S.W.—Establishment of manhood suffrage and vote by ballot. Telegraphic communication between Sydney, Melbourne and Adelaide. Qld.—Canoona gold rush.
Population of Australia reached 1,000,000.
- 1859 Qld.—Proclamation of Queensland as separate colony. Tas.—First submarine cable, via Circular Head and King Island to Cape Otway.
- 1860 Vic.—Burke and Wills left Melbourne and crossed to Gulf of Carpentaria. S.A.—Copper discoveries at Wallaroo and Moonta. McDouall Stuart reached centre of continent.
- 1861 N.S.W.—Anti-Chinese riots at Lambing Flat and Burrangong gold-fields. Opening of first tramway in Sydney. Regulation of Chinese immigration. Vic.—Burke and Wills perished at Cooper's Creek, near Innamincka, S.A.
- 1862 N.S.W.—Abolition of State aid to religion. Real Property (Torrens) Act passed. S.A.—Stuart crossed the Continent from south to north. W.A.—First export of pearl-shell.
- 1863 Vic.—Intercolonial Conference at Melbourne. S.A.—Northern Territory taken over. W.A.—Initiation of settlement in the north-west district. Henry Maxwell Lefroy discovered and traversed area now comprised in the Coolgardie-Kalgoorlie gold-field.
- 1864 Qld.—First sugar made from Queensland cane.
- 1866 N.S.W.—Passage of Public Schools Act of (Sir) Henry Parkes.
- 1867 Vic.—Imposition of protective tariff. Qld.—Discovery of gold at Gympie.
- 1868 W.A.—Arrival of *Hougomont*, last convict ship.
- 1869 Vic.—Record gold nugget "Welcome Stranger" 2,284 oz. found near Dunolly. W.A.—First telegraph line opened from Perth to Fremantle.
- 1870 N.S.W.—Intercolonial Exhibition opened at Sydney. Imperial troops withdrawn. Vic.—Intercolonial Congress at Melbourne. S.A.—Commencement of trans-continental telegraph.
- 1871 N.S.W.—Permanent military force raised. W.A.—Forrest's explorations. Tas.—Discovery of tin at Mount Bischoff.
- 1872 Vic.—Mint opened. S.A.—Cable from Java to Port Darwin. Completion of transcontinental telegraph line.
- 1873 N.S.W.—Intercolonial Conference at Sydney. First volunteer encampment. Inauguration of mail service with San Francisco.
- 1874 N.S.W.—Triennial Parliaments Act passed. Intercolonial Conference. S.A.—University of Adelaide founded. W.A.—John and Alexander Forrest arrived at Overland Telegraph from Murchison.
- 1875 Qld.—Transfer of Port Albany Settlement to Thursday Island.
- 1876 N.S.W.—Completion of cable—Sydney to Wellington. W.A.—Giles crossed colony from east to west.
- 1877 W.A.—Opening of telegraphic communication with South Australia.
Population of Australia reached 2,000,000.
- 1878 Qld.—Restriction of Chinese immigration.
Introduction of telephone into Australia.
- 1879 N.S.W.—First artesian bore at Kallara Station, near Bourke. First steam tramway. W.A.—A. Forrest's explorations in the Kimberley district, and discovery of the Fitzroy pastoral country.

Year.

- 1880 N.S.W.—Public Instruction Act passed. Vic.—First Australian Telephone Exchange opened in Melbourne.
Federal Conference at Melbourne and Sydney.
- 1881 N.S.W.—Further restrictions on Chinese immigration.
First Australia-wide censuses on same date taken.
- 1882 W.A.—Nugget of gold found between Roebourne and Cossack.
- 1883 N.S.W.—Discovery of silver at Broken Hill. Completion of railway between New South Wales and Victoria. Qld.—Annexation of New Guinea—repudiated by Imperial authorities.
Federal Conference held at Sydney. Federal Council created.
- 1884 Federation Bill passed in Victoria and rejected in New South Wales. British protectorate declared over New Guinea.
- 1885 N.S.W.—Military contingent sent to the Sudan. Opening of the Broken Hill Proprietary Silver Mines. W.A.—Gold found by prospectors on the Margaret and Ord Rivers in the Kimberley district. Tas.—Silver-lead discovered at Mount Zeehan.
- 1886 Tas.—Discovery of gold and copper at Mount Lyell.
First session of Federal Council held at Hobart on 26th January.
- 1887 W.A.—Gold discovered at Southern Cross.
First "Colonial" Conference in London. Australasian Naval Defence Force Act passed.
- 1888 N.S.W.—Restrictive legislation against Chinese, imposing poll-tax of £100. Qld.—Railway communication opened between Sydney and Brisbane.
Conference of Australian Ministers at Sydney to consider question of Chinese immigration. First meeting of the Australasian Association for the Advancement of Science held in Sydney.
- 1889 Qld.—Railway communication established between Brisbane and Adelaide. W.A.—Framing of new Constitution.
Population of Australia reached 3,000,000.
- 1890 W.A.—Responsible Government granted. Tas.—University of Tasmania founded.
Meeting at Melbourne of Australasian Federation Conference.
- 1891 N.S.W.—Arrival of Australian Auxiliary Squadron. Cessation of assisted immigration. W.A.—Discovery of gold on the Murchison.
First Federal Convention in Sydney, draft bill framed and adopted.
- 1892 W.A.—Discovery of gold at Coolgardie.
- 1893 Financial crisis, chiefly affecting the eastern States.
- 1894 S.A.—Women's suffrage granted—first State to do so.
- 1895 N.S.W.—Free-trade tariff. Land and income taxes introduced.
Conference of Premiers on Federation at Hobart.
- 1896 N.S.W.—People's Federal Convention at Bathurst. Vic.—Wages Board system established by Act of Parliament.
- 1897–8 Sessions of Federal Convention at Adelaide, Sydney and Melbourne.
- 1898 Draft Federal Constitution Bill submitted to electors in Victoria, New South Wales, South Australia and Tasmania. Requisite statutory number of votes not obtained in New South Wales.
- 1899 First contingent of Australian troops sent to South Africa. Conference of Premiers in Melbourne to consider amendments to Federal Constitution Bill. Referendum—Bill accepted by New South Wales, Victoria, Queensland, South Australia and Tasmania. First Labour Government (Queensland).
- 1900 N.S.W.—Old-age pensions instituted.
Contingents of naval troops sent to China. Commonwealth Constitution Act received Royal Assent, 9th July. Proclamation of Commonwealth signed 17th September. Sir Edmund Barton formed first Federal Ministry.
- 1901 Proclamation of the Commonwealth at Sydney. First Commonwealth Parliament opened at Melbourne by the Duke of Cornwall and York. Interstate free-trade established.

Year.

- 1902 Completion of Pacific Cable (all-British). First Commonwealth Tariff.
- 1903 Coolgardie and Kalgoorlie Water Supply Scheme completed. Inauguration of the Federal High Court.
- 1904 Commonwealth Conciliation and Arbitration Act.
- 1905 Population of Australia reached 4,000,000. Re-introduction of assisted immigration in New South Wales.
- 1906 Wireless telegraphy installed between Queenscliffe, Vic., and Devonport, Tas. Papua taken over by Commonwealth.
- 1907 First telephone trunk line service between Capital Cities, i.e., Sydney and Melbourne. Imperial Conference in London. Declaration of first basic wage in "Harvester Judgment".
- 1908 Canberra chosen as site of Australian Capital.
- 1909 Imperial Defence Conference in London. Visit of Lord Kitchener to report and advise on Australian military defence. Queensland University founded. Establishment of Commonwealth Age Pension Scheme.
- 1910 Penny Postage. Arrival of *Yarra* and *Parramatta*, first vessels built for the Royal Australian Navy. Australian Notes Act passed and first Commonwealth notes issued. Admiral Sir R. Henderson visited Australia to advise on naval defence.
- 1911 First Commonwealth Census. Transfer of Australian Capital Territory and Northern Territory to Commonwealth. Introduction of compulsory military training.
- 1912 Opening of Commonwealth Bank. First payments of Maternity Bonus. First sod of Trans-Australian Railway turned at Port Augusta. University of Western Australia founded.
- 1913 Australian Capital named Canberra and foundation stone laid. Appointment of Interstate Commission.
- 1914 Visit of General Sir Ian Hamilton to report on military defence scheme. Double dissolution of Commonwealth Parliament. Transfer of Norfolk Island to Commonwealth.
European War declared 4th August. German possessions in South West Pacific seized by Australian Naval and Military Expeditionary Force. German cruiser *Emden* destroyed by H.M.A.S. *Sydney* at Cocos Islands, 9th November. Australian and New Zealand Army Corps (ANZAC) formed under Sir William Birdwood.
- 1915 Opening of Broken Hill Proprietary's Ironworks at Newcastle, N.S.W.
Australian and New Zealand troops landed at Gallipoli, 25th April. Evacuation, 18th-20th December. Australian warships with Grand Fleet.
- 1916 Purchase of steamships by the Commonwealth.
Australian and New Zealand mounted troops in Egypt, Palestine and Syria. Other troops transferred to France. First proposal for compulsory military service overseas defeated by referendum.
- 1917 National Ministry formed under Rt. Hon. W. M. Hughes. Transcontinental (Kalgoorlie-Port Augusta) Railway completed.
Australian Flying Corps operating with R.F.C. in Palestine and France. Second proposal for compulsory military service overseas defeated by referendum.
- 1918 Population of Australia reached 5,000,000. Australia House (Strand, London) opened by King George V.
Armistice with Germany, 11th November. Repatriation Commission created.
- 1919 Peace Conference. England to Australia flight by Capt. (Sir) Ross Smith and Lieut. (Sir) Keith Smith. Peace Treaty signed at Versailles, 28th June.
- 1920 Visit to Australia of H.R.H. the Prince of Wales. Imperial Statistical Conference in London.
- 1921 Mandate over Territory of New Guinea given to Australia. First direct wireless press message, England to Australia. Second Commonwealth Census.
- 1922 First lock on River Murray opened at Blanchetown, South Australia. Queensland Legislative Council abolished.

Year.

- 1923 First sod turned on the site of Commonwealth Parliament House at Canberra.
- 1924 Directorate of Commonwealth Bank appointed. Australian Loan Council formed.
- 1925 Population of Australia reached 6,000,000. Solar Observatory established at Canberra.
- 1926 Council for Scientific and Industrial Research established. Imperial Conference. Dominion Status defined.
- 1927 Transfer of Seat of Commonwealth Government from Melbourne to Canberra. Beam wireless established. Financial agreement between Commonwealth and States.
- 1928 State Debts referendum carried.
- 1929 Commonwealth Bank empowered to mobilize gold reserve. Abolition of peacetime compulsory military training in favour of voluntary system.
- 1930 Effects of world-wide severe economic depression felt throughout Australia. Brisbane-Grafton (N.S.W.) railway, first step towards uniform gauge railway communication between capitals of mainland States, opened. First Australian—Rt. Hon. Sir Isaac Alfred Isaacs, G.C.M.G.—appointed Governor-General of Australia.
- 1931 Depression continued. Initiation of Premiers' Conference plan to meet the financial situation. Commonwealth Bank Act amended to provide for temporary lower reserve against notes. England departed from gold standard. Commonwealth Bank assumed control of exchange rate and lowered it to 125 (previously 130).
- 1932 Sydney Harbour Bridge opened. Australian Broadcasting Commission established. Imperial Economic Conference at Ottawa.
- 1933 World Economic Conference in London. Antarctica and Ashmore and Cartier Islands taken over by the Commonwealth. Third Commonwealth Census.
- 1934 Inauguration of England-Australia Air Mail Service.
- 1935 Empire Statistical Conference at Ottawa.
- 1936 Joint Commonwealth and State Marketing Schemes invalidated by decision of the Privy Council in the James case. Tasmania linked with mainland by submarine telephone cable.
- 1937 Imperial Conference in London. Report of the Royal Commission on Monetary and Banking Systems in Australia.
- 1938 New Defence Programme involving expenditure of £63,000,000 over three years. New Trade Treaty with Japan.
- 1939 Population of Australia reached 7,000,000.
War declared on Germany, 3rd September. Advance party of Australians embarked for Middle East, 15th December.
- 1940 Exchange of Ministers between Australia and United States of America marked Australia's entry into field of direct diplomatic representation with countries other than the United Kingdom.
First Australian convoy (6th Australian Division) sailed for Middle East. Cruiser *Sydney* crippled Italian cruiser *Bartolomeo Colleoni*.
- 1941 Establishment of Commonwealth Child Endowment Scheme. United States Congress passed Lend-Lease Bill.
Arrival of units of Eighth Australian Division in Malaya. R.A.A.F. in defence of Britain, in Middle East and at Singapore. Australian forces engaged in Middle East, Greece, Crete and Syria. Japanese attack on Pearl Harbour. Australia declared war on Japan, 9th December.
- 1942 Federal uniform taxation adopted. Commonwealth widows' pensions introduced. Rationing of commodities.
Japanese landed at Rabaul. Fall of Singapore. Darwin bombed. United States armed forces arrived in Australia and headquarters of South-West Pacific Command set up by General Douglas MacArthur in Melbourne. Coral Sea Battle. Japanese midget submarines in Sydney Harbour. Owen Stanley Ranges offensive. Ninth Australian Division at El Alamein (North Africa).

Year.

- 1943 Price Stabilization Scheme. Mortgage Bank Department of Commonwealth Bank opened. National Works Council formed.
Australian forces combined with American forces to recapture many places in New Guinea. R.A.A.F. from 1943 till end of war operated on all fronts.
- 1944 Pay-as-you-earn taxation operated from 1st July. Referendum refused Commonwealth Government increased powers in post-war period.
Australian advances in northern New Guinea. Allied invasion of France. Australians took over from Americans in Solomon Islands and New Guinea.
- 1945 Captain Cook Dock opened, Sydney. Re-establishment and Employment Act. Banking Act to regulate banking and to protect the currency and public credit. Australia ratified United Nations Charter.
Cessation of hostilities in Europe, 8th May. Cessation of hostilities against Japan, 15th August.
- 1946 Inauguration of Commonwealth Employment Service. Joint Organization (Wool Disposal) commenced operations. Act to establish National University at Canberra. Commonwealth and State agreement on housing. Trans-Australia Airlines (Government) began operations. Constitution Alteration Referendum granted powers in respect of social services to Commonwealth.
- 1947 Census of Australia—first since 1933. Australian National Antarctic Research Expedition to establish scientific research station at Heard Island. First "displaced persons" reached Australia.
- 1948 Forty-hour week effective throughout Australia. Membership of Commonwealth Parliament increased.
- 1949 Nationality and Citizenship Act operative. Broadcasting Control Board came into operation. New Guinea placed under international trusteeship and administrative union of Papua and New Guinea established. Establishment of New South Wales University of Technology. Australian Whaling Commission established. Devaluation of Australian pound against American dollar to two dollars twenty-four cents. Commencement of Snowy Mountains Hydro-electric Power Scheme. Australia's population reached 8,000,000.
- 1950 United Nations members engaged in military operations to assist South Korea, and Australian forces in vicinity of Korea were placed at disposal of United Nations. Adult franchise for Victorian Legislative Council replaced existing franchise dependent on property qualifications. Conference of Commonwealth Prime Ministers in London.
- 1951 Transfer of Heard Island and Macdonald Islands to Australia. Double dissolution of Commonwealth Parliament. Official cessation of hostilities with Germany. Security Treaty between United States of America, Australia and New Zealand for action in the event of an armed attack in the Pacific. Japanese Peace Treaty signed. Third Conference of Government Statisticians of the British Commonwealth held in Canberra. Opening of new Legislative Council of Papua and New Guinea, including representatives of the native peoples.
- 1952 Nuclear experiments commenced at National University, Canberra. Important high-grade uranium deposits discovered at Rum Jungle, Northern Territory, and Radium Hill, South Australia. Severe restrictions imposed on imports from all sources and on amounts available for Australians travelling overseas. Representatives of New Zealand, United States of America and Australia met at Honolulu to consider Pacific defence pact (ANZUS.). Qantas Empire Airways began first direct service between Sydney and Johannesburg, South Africa. Britain's first atomic weapon detonated on Monte Bello Islands, near north-west coast of Australia.
- 1953 Atomic Energy Act 1953 established Atomic Energy Commission. Coronation of Her Majesty Queen Elizabeth the Second. Britain and Australia signed agreement for reciprocity in social services benefits. Korean armistice signed. Commonwealth Court of Conciliation and Arbitration granted employers' applications for abandonment of the system of automatic adjustment of the basic wage in accordance with retail price index numbers.

Year.

- 1954 Her Majesty the Queen, with H.R.H. the Duke of Edinburgh, made first tour of Australia by reigning sovereign. Australian National Antarctic Research Expedition established station at Mawson to conduct meteorological and other research. Royal Commission into espionage in Australia set up. Australian population census taken. At Manila Conference, Australia signed treaty pledging collective defence against aggression in South-East Asia and South-West Pacific. Atomic Energy Commission authorized to construct nuclear reactor and research laboratories as part of programme of co-operation in atomic research with United Kingdom.
- 1955 First power generated from Snowy Mountains fed into New South Wales electricity system. Australian population reached 9,000,000. Salk polio vaccine made at Melbourne. Commonwealth Full High Court declared invalid recent legislation imposing road tax on interstate hauliers. Australian troops departed for Malaya to form Australian component of British Commonwealth Far East Strategic Reserve. Cocos (Keeling) Islands became Territory under authority of Commonwealth.
- 1956 SEATO military advisers conference opened in Melbourne. High Court ruled that Arbitration Court had no power to impose penalties on those disobeying its orders. Amendment to Conciliation and Arbitration Act altered structure of arbitration machinery by separating the judicial functions from the conciliation and arbitration functions. Bilateral agreement signed between Australia and U.S.A. for peaceful uses of atomic energy. Dispute over control of Suez Canal resulted in London conference of Canal users. Australian Prime Minister appointed as chairman of committee to place views of conference before the Egyptian President. Conflict between Israel and Egypt; Anglo-French intervention. Regular television transmissions commenced in Australia. Australia and United Kingdom agreed on comprehensive trade pact to replace 24-year-old Ottawa Agreement. Olympic games held in Melbourne.
- 1957 Commonwealth Government representatives and chiefs of private trading banks met in Canberra to discuss changes in the banking system. Third SEATO Council meeting held in Canberra, preceded by conference of military advisers. South-Pacific Commission Conference held in Canberra. Commonwealth Government granted United States additional air traffic rights from Australia to Antarctica, South Africa and South-East Asia for reciprocal rights across the United States for Australian airlines flying to Europe. International Geophysical Year commenced; over 250 Australian scientists participated. High Court ruled that interstate vehicles could not be compelled to register in New South Wales but upheld validity of a Victorian tax on commercial vehicles, including those engaged in interstate trade, imposed solely for the maintenance of roads. Full High Court upheld validity of uniform taxation legislation, but declared invalid section giving priority to the Commonwealth. Commonwealth established National Capital Development Commission to co-ordinate the expansion of Canberra as the centre of Commonwealth administration. Agreement made for standardization of gauge of Melbourne-Albury railway line. Murray Committee, appointed by Commonwealth Government to inquire into the future of Australian Universities.
- 1958 Mr. Macmillan, British Prime Minister, made a two-week visit to Australia, the first by a British Prime Minister in office. Monash University Act provided for establishment of new university in Victoria, and authorized expenditure of up to £2 million for land and buildings. Australia co-operated with United States in maintaining research stations at Wilkes, in Antarctica. Prime Minister officially opened Australia's first nuclear reactor at Lucas Heights, near Sydney. Adaminaby Dam, in Snowy Mountains Hydro-electric Scheme, completed two years ahead of schedule. Tumut Ponds Dam opened by Prime Minister. Integration of Commonwealth and State statistical services accomplished with arrangement with Victoria coming into effect. Agreement reached between Commonwealth and States of New South Wales, Victoria and South Australia, on Snowy Mountains and Murray Waters. Christmas Island (Indian Ocean) transferred to Australian Administration. High Court ruled Queensland road transport levies valid (cf. N.S.W. & Vic., 1957). Conference in Canberra between Australia and Netherlands reached agreement on administrative problems of New Guinea. New South Wales Act passed providing for equal pay for male and female workers performing similar tasks.

Year.

- 1959 Annual Holidays Act, 1944–1958, of New South Wales, provided for three weeks annual holidays for all New South Wales workers. British Commonwealth Defence conference opened in Canberra. Australia took over custody of Wilkes Antarctic station from United States of America. Indonesian Foreign Minister (Dr. Subandrio) visited Australia as official guest for talks with Cabinet. International Antarctic Analysis Centre set up at Melbourne within Commonwealth Bureau of Meteorology. National roads conference convened by Prime Minister. Commonwealth plan for expenditure of £720,000,000 on roads and bridges accepted by Premiers' Conference. Fifteenth session of ECAFE held at Broadbeach, Queensland. Population reached 10,000,000. High Court ruled that provisions of Commonwealth Re-establishment and Employment Act giving priority in employment to ex-servicemen were invalid because of lapse of time since end of 1939–45 War. Legislation passed in New Guinea providing for income tax at half Australian rates with higher concessional allowances. T1, underground power station, first major station of Snowy Mountains Scheme, commenced operation. New Immigration Act, abolishing Dictation Test, and making a number of other changes, became operative. Fourteen mile, £19,000,000 Eucumbene-Tumut tunnel, in Snowy Mountains, completed four months ahead of schedule. Australian Universities Commission constituted. Commonwealth Treasurer attended Commonwealth Finance Ministers Conference in London and meetings of International Monetary Fund and International Bank for Reconstruction and Development in Washington. Malayan Prime Minister (Tunku Abdul Rahman) and Minister of Interior made official visit to Australia. Commonwealth Parliamentary Association Conference held at Canberra. New South Wales State Industrial Commission outlined programme for putting into effect principle of equal pay for women over five-year period. National Service Training suspended. Commonwealth Conciliation and Arbitration Commission granted increase of 28 per cent. in margins of metal trades employees. Prime Minister made official visit to Indonesia and Malaya. Australia signed Antarctic Treaty at Washington relating to activities in and the use of Antarctica.
- 1960 Greek Legation in Canberra raised to status of Embassy. Life peerage conferred on Rt. Hon. R. G. Casey. Viscount Dunrossil sworn in as Governor-General. Provision made for Social Service benefits to be paid to Australian aboriginals. Commonwealth Banks Act and Reserve Bank Act proclaimed, establishing separate Commonwealth Development Bank, Commonwealth Trading Bank, and Reserve Bank of Australia. Air Transport arrangement formalized between Australia and Italy. Australia and Canada signed new trading agreement, replacing 1931 agreement, which gave increased tariff preference to a wide variety of Australian exports. Goods comprising 90 per cent. of Australia's present imports exempted from licensing provisions. Australian High Commissioner in India appointed concurrently as Ambassador to Nepal with offices in New Delhi. Second conference on Netherlands—Australian administrative co-operation in New Guinea met in Hollandia (cf. 1958). Commonwealth legislation introduced to give the Commonwealth powers to guarantee public loan raisings in Papua and New Guinea. Plans announced by oil companies for building of lubricating oil refineries at Kurnell, New South Wales and Kwinana, Western Australia. Australia-India Air Agreement signed dealing, *inter alia*, with tripartite partnership agreement between Qantas, BOAC, and Air India. Commonwealth Prime Minister's Conference in London. Severe floods in Derwent Valley (Tasmania) cause over £1,000,000 damage in Hobart. Australia joined International Development Association as foundation member (see Diary of Economic Events, 24th April). Australian mission to European Economic Community established, with status of Embassy. Telephonic Communications (Interception) Bill passed, prohibiting any interception of telephone messages except in interests of national security. National Service training formally ended and trainees discharged. National Export Drive Campaign and Convention. International Wool Textile Research conference held at Harrogate, England, was attended by eighteen Australian scientists. Trans-Australia Airlines had first passenger aircraft loss since commencing operations. Australia's first case of kidnap for ransom reported in Sydney. Australia and Portugal established diplomatic relations at Embassy level. Report of Committee on Decimal Coinage, unanimously in favour, tabled in House of Representatives. Aluminium works sold to private company by Commonwealth

Government. Australia was "guest nation" at Swiss National Fair. Australia pledged £6,965,000 towards loans for financing £400,000,000 development plan in Pakistan and India. Changes made in Constitution of Papua and New Guinea providing for an increase in number of native members of Legislative Council to eleven including six elected by natives, a stage in the advance to self-government. Prime Minister attended 15th Session of the United Nations General Assembly. Warragamba and Keepit Dams opened by Premier of New South Wales. New Legislative Council Chambers of Papua and New Guinea opened by Minister for Territories and first session of newly constituted Council opened by Governor-General Lord Dunrossil. Commonwealth Government appointed committee to inquire into wool marketing methods. Approval given for thirteen country areas to have television stations, one commercial, one national in each. First Australian High Commissioner appointed to Nigeria. Report of Dairy Industry Committee of Enquiry tabled in House of Representatives. New South Wales Government introduced Company Law Amendment Bill, the first of a series designed to provide for uniform Company Law throughout Australia. Government announced special economic measures (restriction of bank and hire purchase credit, increased sales tax on cars, etc.) to correct certain trends in Australian economy. Government bill for increased sales tax on motor cars, defeated in Senate, but passed on recommitment in absence of one Senator. French Mirage III jet fighter selected as replacement for R.A.A.F. Avon Sabre Aircraft. Helicopter landing platform opened in Melbourne, on River Yarra.

STATISTICAL SUMMARY: AUSTRALIA.

NOTE.—(1) In most cases where figures are available back to 1861, these were shown in Official Year Book No. 39, pp. xxviii-xxix.

(2) The statistics in this summary relate in general to the periods shown in the table headings; where the statistics relate to other periods, this is indicated in the footnotes.

		Year ended 30th June—							
Item.		1892.	1902.	1912.	1922.	1932.	1942.	1952.	1960.
DEMOGRAPHY(a)—									
Population(b)	{ '000 Males ..	1,737	2,005	2,382	2,799	3,333	3,599	4,311	5,136
	{ '000 Females ..	1,504	1,820	2,192	2,712	3,220	3,545	4,217	5,030
	{ '000 Persons ..	3,241	3,825	4,574	5,511	6,553	7,144	8,528	10,166
Net Oversea Migration	'000	26.9	3.0	74.4	17.5	-10.1	5.2	111.4	76.8
Marriages ..	{ '000	24	28	39	47	39	75	77	74
	{ Rate(c)	7.5	7.3	8.8	8.6	6.0	10.6	9.2	7.4
Divorces(d) and Judicial Separations ..		190	399	522	1,502	1,955	3,330	7,327	7,340
Births ..	{ '000	110	103	122	136	119	135	193	227
	{ Rate(c)	34.5	27.2	27.2	25.0	18.2	18.9	22.9	22.6
Deaths ..	{ '000	47	46	48	54	57	71	82	89
	{ Rate(c)	14.8	12.2	10.7	9.9	8.7	10.0	9.7	8.9
Infant Deaths	{ '000	12.7	10.7	8.4	9.0	5.0	5.3	4.9	4.9
	{ Rate(e)	115.3	103.6	68.5	65.7	42.1	39.7	25.2	21.5
WAGES (ADULT MALES)(b)—									
Minimum Weekly Wage Rate									
Index Numbers(f) ..		(g)	(g)	(g)	(g)	(g)	38.5	85.8	122.0
PRODUCTION—									
Agricultural(h)—									
Wheat ..	{ Area mill. acs.	3.3	5.1	7.4	9.7	14.7	12.0	10.4	12.2
	{ Yield mill. bus.	26	39	72	129	191	167	160	199
	{ Av. Yield bus.	7.7	7.5	9.6	13.3	12.9	13.9	15.4	16.3
	{ Area '000 acs.	246	461	617	733	1,085	1,460	2,365	3,030
Oats ..	{ Yield mill. bus.	5.7	9.8	9.6	12.1	15.2	22.3	34.5	46.8
	{ Av. Yield bus.	23.3	21.2	15.5	16.6	14.0	15.3	14.6	15.5
	{ Area '000 acs.	68	75	116	299	342	784	1,118	2,380
Barley ..	{ Yield mill. bus.	1.2	1.5	2.1	6.1	6.3	18.0	21.9	34.1
	{ Av. Yield bus.	17.3	20.4	17.7	20.4	18.4	23.0	19.6	14.3
	{ Area '000 acs.	284	295	340	305	269	301	170	186
Maize ..	{ Yield mill. bus.	9.3	7.0	8.9	7.8	7.1	7.4	4.0	6.7
	{ Av. Yield bus.	32.6	23.9	26.3	25.7	26.2	24.7	23.7	36.4
	{ Area '000 acs.	942	1,688	2,518	2,995	2,635	2,758	1,549	2,105
Hay ..	{ Yield '000 tons	1,067	2,025	2,868	3,902	3,167	3,575	2,345	3,173
	{ Av. Yield tons	1.13	1.20	1.14	1.30	1.20	1.30	1.51	1.51
	{ Area '000 acs.	113	110	130	149	145	99	118	108
Potatoes ..	{ Yield '000 tons	380	323	301	388	397	333	509	579
	{ Av. Yield tons	3.37	2.94	2.31	2.60	2.74	3.35	4.31	5.36
	{ Area(i) '000 acs.	45	87	101	128	242	255	282	314
Sugar-cane	{ Yield '000 tons	738	1,368	1,682	2,437	4,213	5,154	5,327	9,002
	{ Av. Yield tons	16.2	15.7	16.7	19.0	17.4	20.3	18.9	28.7
Vineyards	{ Area '000 acs.	49	64	61	92	113	130	136	131
	{ Wine mill. gals.	3.4	5.3	5.0	8.5	14.2	16.0	35.3	28.4
Total Area of Crops	mill. acs.	5.4	8.4	12.1	15.4	21.2	20.5	19.7	26.1
Pastoral, Dairying, etc.—									
Livestock(j)	{ Horses mill.	1.6	1.6	2.3	2.4	1.8	1.6	0.9	0.6
	{ Cattle ..	11.1	8.5	11.8	14.4	12.3	13.6	14.9	16.5
	{ Sheep ..	106	72	97	86	111	125	118	155
	{ Pigs ..	0.9	0.9	1.1	1.0	1.2	1.5	1.0	1.4
Wool(k) ..	.. mill. lb.	(a) 634	(a) 539	(a) 798	723	1,007	1,167	1,080	1,689
Butter ..	'000 tons	(a) 19	(a) 46	(a) 95	(a) 119	175	168	135	197
Cheese ..	'000 tons	(a) 4.5	(a) 5.3	(a) 7.1	(a) 14.6	14.0	30.1	40.6	44.6
Meat(l)—									
Beef and Veal ..	..				{ 339	350	534	582	767
Mutton and Lamb ..	..				{ 218	307	372	282	557
Pigmeat ..	..				{ 51	70	121	85	102
Total Meat ..	..				{ 608	727	1,027	949	1,426

(a) Year ended previous December. (b) At 31st December of previous year. (c) Number per 1,000 of mean population. (d) Decrees made absolute, including decrees for nullity of marriage. (e) Number per 1,000 live births. (f) New Series. Base: Year 1954=100. Excludes Rural Industry. (g) Not available. (h) Season ending in year shown. (i) Cane cut for crushing. (j) As at 31st December of previous year for years to 1942, as at 31st March of year shown thereafter. (k) In terms of greasy. (l) Carcass weight in terms of fresh meat.

STATISTICAL SUMMARY: AUSTRALIA—continued.

NOTE.—See headnotes on page 1201.

Item.	Year ended 30th June—								
	1892.	1902.	1912.	1922.	1932.	1942.	1952.	1960.	
PRODUCTION—continued.									
Mineral(a)(b)—									
Copper(c) .. '000 tons	(d)	(d)	(d)	(d)	13.5	20.9	18.6	94.7	
Gold(c) .. '000 fine oz.	1,243	3,300	2,484	758	595	1,497	896	1,085	
Lead(c) .. '000 tons	3.5	11.8	22.2	57.7	162.6	275.5	212.0	316.3	
Zinc(c) .. (e)	(e)	(e)	190.3	20.7	97.5	170.0	189.2	248.8	
Black Coal .. Mill. tons	4.4	6.9	10.6	12.8	8.4	14.2	17.6	20.3	
Brown Coal .. " "	..	..	(e)	0.1	2.2	4.6	7.8	13.0
Forestry—									
Sawn output of native timber mill. sup. ft.	(d)	(a) 452	(a) 605	590	237	914	1,393	1,507	
Factories—									
Number of factories '000	(f)	(f)	{ 14.5	18.0	21.7	27.0	45.8	56.7	
Persons employed ..				379	337	725	978	1,132	
Salaries and wages paid £m.				28	68	56	180	612	1,086
Net value of production(g)—									
Chemicals, etc. .. " "	(d)	(d)	{ 1.1	3.2	7.9	24.8	63.7	178.3	
Industrial metals, etc. .. " "				12.0	23.6	22.8	119.9	413.1	849.1
Textiles, etc. .. " "				7.5	19.2	6.9	21.0	56.6	108.3
Clothing .. " "				11.8	27.2	11.1	23.6	81.1	118.8
Food, etc. .. " "				4.2	9.0	28.7	53.2	141.1	260.1
Paper, etc. .. " "	23.3	29.1	{ 4.2	9.6	17.1	68.2	149.1		
All groups .. " "				112.5	111.0	316.5	1,024.9	2,074.9	
Value of land and buildings .. " "				32.5	67.3	106.6	156.3	360.2	1,063.9
Value of plant and machinery, .. " "	(d)	(d)	{ 31.4	78.1	121.5	169.2	412.5	1,220.1	
Net value of production(h)—									
Agriculture .. £m.	17.0	23.8	38.8	81.9	49.7	64.0	246.7	292.1	
Pastoral .. " "	31.3	27.2	52.7	75.1	43.0	85.4	400.5	535.8	
Dairying .. " "	6.0	7.6	16.1	35.3	22.6	34.3	103.8	153.9	
Poultry .. " "	1.9	2.0	4.0	9.0	5.7	6.5	31.5	30.4	
Bee-farming .. " "	0.1	0.1	0.1	0.1	0.1	0.4	0.8	2.1	
Total, Rural .. " "	56.3	60.7	111.7	201.4	121.1	190.6	783.3	1,014.3	
Trapping .. " "	(d)	(d)	(d)	(d)	1.5	5.0	6.7	6.9	
Forestry .. " "	4.4	2.8	{ 4.8	9.1	3.9	10.2	37.9	55.1	
Fishing and Whaling .. " "				1.1	1.4	1.8	5.7	12.3	
Mining and Quarrying(i) .. " "				12.1	22.0	23.3	13.5	33.4	97.2	126.1
Total, Non-Rural .. " "	16.5	24.8	29.2	30.5	20.3	50.4	147.5	200.4	
Total, Primary .. " "	72.8	85.5	140.9	231.9	141.4	241.0	930.8	1,214.7	
Factories(g) .. " "	23.3	29.1	47.5	112.5	111.0	316.5	1,024.9	2,074.9	
Total All Industries .. " "	96.1	114.6	188.4	344.4	252.4	557.5	1,955.7	3,289.6	
OVERSEA TRADE—									
Imports .. £m. f.o.b.	(a) 34	(a) 38	(a) 61	94	52	174	1,053	926	
Exports .. " "	36	50	79	128	108	169	675	938	
Principal Exports(j)—									
Wool .. { Mill. lb.(k) ..	641	529	734	946	903	938	1,036	1,524	
.. { £m. f.o.b. ..	20	15	26	48	32	58	323	386	
Wheat .. { '000 tons ..	258	543	1,477	2,677	3,413	598	1,685	2,444	
.. { £m. f.o.b. ..	1.9	2.8	9.6	28.6	19.2	4.6	55.3	61.7	
Flour .. { '000 short tons ..	33	97	176	360	611	414	789	536	
.. { £m. f.o.b. ..	0.3	0.6	1.4	5.5	3.8	4.2	33.0	15.1	
Butter .. { mill. lb. ..	4	35	102	127	202	130	25	172	
.. { £m. f.o.b. ..	0.2	1.4	4.6	8.0	10.3	8.1	4.6	28.6	

(a) Year ended previous December. (b) Breaks in the continuity of the series occurred in 1931 and 1951. (c) Mine production, i.e., metal content of minerals produced. (d) Not available. (e) Less than .05. (f) Owing to variation in classification, effective comparison is impossible. (g) For definition see page 161. (h) Gross value from 1891 to 1921–22. Prior to 1922, figures are for years ended previous December. For definitions of gross and net value see page 1119. (i) Incomplete. (j) Australian produce except gold, which includes re-exports. (k) In terms of greasy.

STATISTICAL SUMMARY: AUSTRALIA—continued.

NOTE.—See headnotes on page 1201.

Item.	Year ended 30th June—							
	1892.	1902.	1912.	1922.	1932.	1942.	1952.	1960.
OVERSEA TRADE—continued.	(a)	(a)	(a)					
Principal Exports(b)—continued.								
Hides and Skins £m. f.o.b.	0.9	1.3	3.2	3.1	2.3	6.0	17.1	32.8
Meats	0.5	2.6	4.3	5.5	6.4	14.1	35.5	88.6
Fruit(c) .. .. .	..	0.2	0.5	3.0	4.8	4.0	19.5	29.7
Sugar .. .. .	..	(d)	(d)	(d)	2.5	2.6	6.9	26.7
Gold	5.7	14.3	12.0	3.5	11.9	9.2	7.0	10.2
Silver and Lead(e) ..	1.9	2.3	3.2	2.7	2.9	7.4	32.1	22.3
Ores and Concentrates(f) ..	..	(d)	3.7	0.8	0.2	1.3	20.4	17.8
Principal Imports—			(a)					
Vegetable foodstuffs, etc. ..	(g)	3.6	3.7	4.0	2.6	6.1	25.0	27.5
Apparel, etc.		10.9	16.2	31.0	15.4	32.7	203.6	111.0
Oil, etc.		1.2	1.6	4.7	5.5	16.2	87.5	106.9
Metals, etc.		7.8	14.0	22.8	7.4	71.8	393.4	355.3
Rubber, etc.		0.5	1.4	1.7	0.8	3.2	34.0	24.2
Paper, etc.		1.6	2.6	4.4	4.4	4.3	68.8	55.0
TRANSPORT AND COMMUNICATION—								
Shipping—	(a)	(a)	(a)					
Oversea Vessels, } No. ..	3,778	4,028	4,174	3,111	3,057	2,544	4,136	5,945
Entrances and } mill. tons	4.7	6.5	10.0	9.1	11.4	10.8	18.2	28.9
Clearances								
Oversea Cargo—								
Discharged mill. tons(h)	(g)	(g)	(g)	2.4	3.0	5.5	14.4	18.7
Shipped				5.8	6.7	4.2	5.7	11.6
Interstate Vessels, } No. ..	(g)	(g)	9,605	9,782	7,957	9,100	7,524	9,988
Entrances and } mill. tons			13.1	12.8	11.1	12.9	15.8	19.1
Clearances								
Interstate Cargo Shipped			(g)	5.5	4.0	10.0	9.0	14.3
mill. tons(h)								
Government Railways—	(i)	(i)	(i)					
Route-miles	10.4	12.8	16.8	23.5	27.0	27.2	26.8	26.2
Passenger-journeys mill.	84	115	228	335	303	475	501	461
Goods and livestock carried								
mill. tons	9.4	15.5	25.5	31.5	26.1	38.9	44.3	51.0
Train-miles run	29.7	38.2	55.2	56.1	63.8	88.5	93.4	92.7
Tramways and Omnibuses—								
Passenger-journeys—								
Trams and Trolleybuses mill.	(g)	(g)	(g)	569	589	874	663	339
Omnibuses(j)				(g)	(g)	193	356	420
Motor vehicles on the register—								
Cars	(g)	(g)	(g)	102	420	451	1,026	1,924
Commercial vehicles ..					96	251	585	807
Civil Aviation (Internal)—								
Plane-miles flown .. mill.	..	..	..	..	2.5	7.8	41.8	43.2
Passengers carried .. '000	..	..	..	..	57	152	1,829	2,660
Passenger-miles .. mill.	..	..	..	..	(g)	76	722	1,133
Freight car- '000 short tons	..	..	..	..	0.1	1.2	57.5	65.4
ried } mill. ton-miles	..	..	..	..	(g)	0.9	26.7	29.2
Postal—	(a)	(a)	(a)					
Postal matter dealt with(k)								
mill. articles	286	365	680	778	887	1,124	1,482	1,953
Telegrams and cablegrams mill.	10.0	9.9	13.3	16.8	13.9	26.1	29.8	22.2
Telephones—								
Instruments	7	29	103	259	485	739	1,301	2,164
Lines	(g)	25	85	196	364	531	928	1,514
Calls—Trunk	(g)	(g)	(g)	14.0	28.9	45.3	69.4	134.0
Local	(g)	(g)	(g)	221	369	664	968	1,478
Broadcast Listeners' Licences '000	..	..	..	(l) 36	369	1,320	1,961	2,283
PUBLIC FINANCE—								
Commonwealth—								
Consolidated Revenue Fund—		(i)	(i)					
Revenue .. .. .	..	11	21	64	72	210	1,017	1,438
Expenditure .. .. .	..	4	15	64	72	210	1,017	1,438
Net loan fund expenditure ..	..	..	1	5	4	213	55	60
Taxation collections .. .. .	..	9	16	50	54	180	934	1,250

(a) Year ended previous December. (b) Australian produce except gold, which includes re-exports. (c) Excludes fruit juices. (d) Less than .05. (e) Includes concentrates. (f) Excludes Lead and Silver-lead ores and concentrates. (g) Not available. (h) Tons weight plus tons measurement. (i) Year ended 30th June. (j) Government and municipal only. (k) Letters, post-cards, lettercards, newspapers, packets, parcels and registered articles. (l) Year 1923-24.

STATISTICAL SUMMARY: AUSTRALIA—continued.

NOTE.—See headnotes on page 1201.

Item.	Year ended 30th June—							
	1892.	1902.	1912.	1922.	1932.	1942.	1952.	1960.
PUBLIC FINANCE—continued.								
State—								
Consolidated Revenue Funds—								
Revenue .. £m.	(a)	28	41	85	100	152	388	699
Expenditure ..	(a)	29	41	87	121	149	392	701
Net loan expenditure(b) ..	(a)	9	16	34	6	8	198	178
Taxation collections ..	(a)	3	5	18	33	57	63	161
Govt. Securities on Issue(c)—								
Commonwealth .. £m.			6	354	319	638	1,869	1,553
State ..	(d) 155	213	279	519	789	911	1,396	2,545
Total ..	(d) 155	213	285	873	1,108	1,549	3,265	4,098
Overseas ..	(a)	(a)	194	412	522	516	406	475
In Australia ..	(a)	(a)	91	461	586	1,033	2,859	3,623
PRIVATE FINANCE—								
Commonwealth Note Issue(e) £m.	..	..	8	54	51	103	303	421
All cheque-paying banks—								
Advances(f) ..	125	94	109	183	261	324	817	1,088
Deposits(f) ..	98	91	143	289	319	483	1,353	1,815
Bank clearings(d) ..	(a)	338	662	1,702	1,581	2,828	12,160	24,018
Savings bank deposits(g) ..	(d) 15	31	59	154	198	274	892	1,523
Life Assurance(d)(h)—								
Ordinary—								
Policies .. '000			414	484	871	1,340	2,553	3,710
Sum assured .. £m.			108	109	285	463	1,212	3,286
Industrial—								
Policies .. '000	(a)	236	467	973	1,550	2,780	3,843	3,443
Sum assured .. £m.		5	10	30	67	127	254	333
Total—								
Policies .. '000		650	951	1,703	2,421	4,120	6,396	7,153
Sum assured .. £m.		113	119	211	352	590	1,466	3,619
SOCIAL STATISTICS—								
Commonwealth Social Services—								
Age and Invalid .. '000(c)	..	..	90	144	256	336	420	619
Pensions .. £m.	..	..	2.2	5.4	11.1	19.3	59.8	147.0
Child Endowment .. '000(c)	..	..	..	..	..	910	2,518	3,252
Children Endowed .. £m.	..	..	..	..	..	11.3	46.6	62.5
Total Commonwealth Health and Social Services(i) £m.	..	..	2.2	6.1	11.5	30.9	137.6	299.4
War Pensions .. '000(c)	..	..	..	225	274	220	525	654
Service Pensions .. '000(c)	..	..	..	7.0	7.4	7.5	31.8	54.4
State Social Services(j)—	..	..	..	..	..	0.6	1.8	6.7
Education(d)—								
Government Schools—								
Schools .. '000	6.2	7.0	8.0	9.4	10.1	9.5	7.6	7.8
Staff ..	12.6	14.5	17.0	26.1	33.8	32.1	36.7	54.9
Students ..	561	638	639	819	937	887	1,013	1,549
Non-government Schools—								
Schools .. '000	2.0	2.5	1.9	1.7	1.8	1.9	1.9	2.2
Staff ..	6.0	8.3	7.8	8.8	10.0	11.4	13.3	17.0
Students ..	125	149	161	199	221	257	326	494
Universities(k)—								
Number ..	4	4	5	6	6	8	9	10
Staff(l) ..	(a)	(a)	249	482	703	1,416	3,082	4,589
Students .. '000	1.6	1.8	3.4	8.0	9.8	13.9	31.7	47.4
Public Hospitals—								
Number ..	(d)	(d)	(d)	(d)	(d)			
Staff—Medical .. '000	(a)	285	355	404	513	566	675	735
Nursing ..	(a)	(a)	1.1	1.5	3.2	3.9	6.9	9.4
In-patients, cases treated ..	mn 54	(n) 91	134	215	371	595	896	1,173
POLICE AND PRISONS(d)—								
Police .. '000	5.3	5.8	6.4	6.9	8.6	9.7	12.3	14.9
Prisons ..	(a)	(a)	104	91	85	70	69	74
Prisoners .. '000	(a)	4.3	3.1	2.9	4.2	3.2	4.8	6.6
PRICES(d)—								
"C" Series Retail Price Index(o)	..	..	1,000	1,680	1,448	1,673	3,124	(p)4,473 (q)4,47

(a) Not available. (b) Loan Expenditure on works, services, etc. (c) At 30th June.
 (d) Not added previous December. (e) At end of June. (f) Figures for 1892 are averages of
 weekly balance for the December quarter; the remainder are for the June quarter. (g) 1891 at 31st
 December, thereafter at 30th June. (h) Existing business in Australia. (i) Excludes war and
 service pensions. (j) Includes Northern Territory and Australian Capital Territory. (k) Excludes
 Australian National University. (l) Teaching and research staff. Includes part-time. (m) Year
 1891–92 for Victoria. (n) South Australia includes Adelaide Hospital only. (o) Base: 1911 =
 1,000. (p) Excludes price movement of potatoes and onions. (q) Includes price movement of
 potatoes and onions.

APPENDIX.

(Some recent information which has come to hand since the various chapters were sent to press is given hereunder in summarized form. For further or more detailed information, and for the latest available statistics, reference should be made to other publications issued by this Bureau (see p. 1156), notably the *Monthly Review of Business Statistics* and the *Quarterly Summary of Australian Statistics*.)

CHAPTER II.—PHYSIOGRAPHY.

§ 2. Climate and Meteorology of Australia.

Rainfall: Australian Capital Cities, p. 48.—Rainfall recorded in Australian capital cities during 1960 was as follows:—Perth, 28.21 ins.; Darwin, 69.09 ins.; Adelaide, 23.07 ins.; Brisbane, 27.51 ins.; Sydney, 51.01 ins.; Canberra, 30.99 ins.; Melbourne, 33.50 ins.; Hobart, 29.35 ins.

CHAPTER III.—GENERAL GOVERNMENT.

§ 2. Parliaments and Elections.

State Elections, p. 68.—Elections were held in Victoria during 1961. Particulars of the voting for the Legislative Assembly were as follows:—

Electors enrolled	..	..	..	..	Males	..	758,029
					Females	..	796,827
					Total	..	1,554,856
Electors who voted, Contested Electorates	..	..	..	..	Males	..	717,755
					Females	..	750,107
					Total	..	1,467,862

The Parliament of New South Wales, p. 69.—A referendum was held on 29th April, 1961, on a proposal to abolish the Legislative Council. Of the 2,104,811 electors enrolled, 1,941,199 recorded their votes, 49,364 of which were informal. Of the 1,891,835 formal votes, 802,530 were in favour of abolition and 1,089,305 against.

§ 3. Administration and Legislation.

Governors-General, p. 73.—Governor-General, from 3rd August, 1961:—The Rt. Hon. William Philip, Viscount De L'Isle, V.C., P.C., G.C.M.G., K.St.J.

Governors and State Ministers, pp. 76–78.—(i) *Victoria*—

Ministry (from 26th July, 1961).

Premier and Treasurer— THE HON. H. E. BOLTE, M.P.	Commissioner of Crown Lands and Survey, Minister of Soldier Settlement, Minister for Conservation and President of the Board of Land and Works— THE HON. K. H. TURNBULL, M.P.
Chief Secretary and Attorney-General— THE HON. A. G. RYLAH, E.D., M.P.	Minister of Labour and Industry and Minister of Electrical Undertakings— THE HON. G. O. REID, M.P.
Minister of Transport and a Vice-President of the Board of Land and Works— THE HON. SIR ARTHUR WARNER, M.L.C.	Minister for Local Government— THE HON. M. V. PORTER, M.P.
Minister of Agriculture and a Vice-President of the Board of Land and Works— THE HON. G. L. CHANDLER, C.M.G., M.L.C.	Minister of State Development— THE HON. A. J. FRASER, M.C., M.P.
Minister of Water Supply and Minister of Mines— THE HON. W. J. MIBUS, M.P.	Minister of Housing and Minister of Forests— THE HON. L. H. S. THOMPSON, M.L.C.
Minister of Education— THE HON. J. S. BLOOMFIELD, M.P.	Minister of Health— THE HON. R. W. MACK, M.L.C.
Commissioner of Public Works, Minister of Immigration and a Vice-President of the Board of Land and Works— THE HON. H. R. PETTY, M.P.	Minister without Portfolio— THE HON. E. R. MEAGHER, M.B.E., E.D., M.P.

(ii) *Queensland*—On 4th May, 1961, the Hon. H. Richter was appointed as Minister for Public Works and Local Government following on the death of the Hon. L. H. S. Roberts.

§ 5. Cost of Parliamentary Government, p. 93.

The cost of Parliamentary Government, Commonwealth and individual States, for the year 1959–60 was as follows:—

Commonwealth, £3,181,262 (6s. 3d. per head); New South Wales, £906,100 (4s. 9d.); Victoria, £695,399 (4s. 11d.); Queensland, £599,125 (8s. 3d.); South Australia, £390,741 (8s. 4d.); Western Australia, £479,357 (13s. 3d.); Tasmania, £279,896 (16s. 1d.); and total, £6,531,880 (12s. 10d.).

The amounts expended under the major headings for all Governments during 1959–60 were:—Governor-General or Governor, £449,384; Official Establishments, £15,896; Ministry, £451,648; Parliament, £4,524,150; Electoral, £1,045,833.

CHAPTER VI.—MANUFACTURING INDUSTRY.

Summary, p. 163.—The following table gives a summary of operations in manufacturing industries during 1959–60.

FACTORIES: 1959-60, SUMMARY.

Particulars.		N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Factories	No.	23,274	16,979	5,758	4,684	4,279	1,683	56,657
Persons employed(a) ..		467,139	381,514	104,693	99,018	49,651	29,662	1,131,677
Salaries and wages paid (b) £'000		461,144	370,181	89,367	95,238	41,643	28,786	1,086,359
Value of power, fuel, light, etc., used		87,108	47,140	15,183	15,093	10,071	6,220	180,815
.. materials used		1,206,255	875,973	291,388	207,636	119,138	67,609	2,767,999
.. production(c)		916,446	686,501	162,392	162,973	86,374	60,196	2,074,882
.. output		2,209,809	1,609,614	468,963	385,702	215,583	134,025	5,023,696
.. land and buildings ..		440,548	353,735	76,352	77,632	43,573	72,012	1,063,852
.. plant and machinery ..		506,638	377,092	120,211	98,240	64,225	53,658	1,220,064

(a) Average over whole year; includes working proprietors. (b) Excludes amounts drawn by working proprietors. (c) Value added in process of manufacture (i.e., value of output less value of materials and fuel used).

Value of Production in Classes of Industry, p. 186.—The following table shows, for the year 1959–60, the value of production in Australia for the various classes of industry.

FACTORIES: VALUE OF PRODUCTION, AUSTRALIA, 1959-60.

(£'000.)

Class of Industry.	Value of Production. (a)
I. Treatment of Non-metalliferous Mine and Quarry Products ..	52,427
II. Bricks, Pottery, Glass, etc.	44,519
III. Chemicals, Dyes, Explosives, Paints, Oils, Grease	178,266
IV. Industrial Metals, Machines, Conveyances	849,092
V. Precious Metals, Jewellery, Plate	8,012
VI. Textiles and Textile Goods (not Dress)	108,344
VII. Skins and Leather (not Clothing or Footwear)	18,940
VIII. Clothing (except Knitted)	118,847
IX. Food, Drink and Tobacco	260,068
X. Sawmills, Joinery, Boxes, etc., Wood Turning and Carving ..	97,689
XI. Furniture of Wood, Bedding, etc.	33,762
XII. Paper, Stationery, Printing, Bookbinding, etc.	149,093
XIII. Rubber	32,138
XIV. Musical Instruments	1,926
XV. Miscellaneous Products	41,140
XVI. Heat, Light and Power	80,619
Total	2,074,882

(a) See footnote (c) to previous table.

CHAPTER IX.—POPULATION.

§ 2. The Census.

2. Population recorded at Censuses, p. 288.—Figures for the population in States and Territories as recorded at the Census of 31st June, 1961, are as follows. The figures are derived from the preliminary check of the Census Schedules and are subject to amendment on completion of tabulation.

POPULATION IN STATES AND TERRITORIES, CENSUS, 30th JUNE, 1961.
(EXCLUDING FULL-BLOOD ABORIGINALS.)

State or Territory.	Persons.
New South Wales	3,916,907
Victoria	2,930,244
Queensland	1,518,859
South Australia	969,258
Western Australia	736,624
Tasmania	350,332
Northern Territory	27,139
Australian Capital Territory	58,828
Australia	10,508,191

§ 3. Growth and Distribution of Population.

6. Principal Urban Areas, p. 294.—The following table shows the estimated population of the principal urban areas, comprising all incorporated cities and towns and non-municipal towns with a population of 7,000 persons or more, in each State and Territory of Australia at 30th June, 1961.

ESTIMATED POPULATION OF PRINCIPAL URBAN AREAS: AUSTRALIA.
(EXCLUDING FULL-BLOOD ABORIGINALS.)

City or Town.	Population.	City or Town.	Population.	City or Town.	Population.
New South Wales.		Victoria.		South Australia.	
		Melbourne and Suburbs(a)	1,907,366	Adelaide and Suburbs(a)	587,656
Sydney and Suburbs(a)	2,181,211	Geelong and Suburbs(b)	91,666	Elizabeth(c)	23,317
Newcastle and Suburbs(b)	208,905	Ballarat and Suburbs(b)	54,913	Mount Gambier	15,354
Greater Wollongong	131,758	Bendigo and Suburbs(b)	40,309	Port Pirie	14,190
Greater Cessnock	35,270	Warrnambool	15,697	Whyalla	14,076
Penrith	31,868	Moe	15,454	Port Augusta	9,705
Broken Hill	31,268	Morwell(c)	14,827	Salisbury(c)	9,356
Blue Mountains	28,070	Wangaratta	13,812	Port Lincoln	7,651
Maitland	27,344	Shepparton	13,574	Western Australia.	
Wagga Wagga	22,089	Traralgon	12,298	Perth and Suburbs(a)	419,755
Goulburn	20,550	Mildura	12,273	Kalgoorlie and Suburbs(b)	21,770
Tamworth	19,064	Hamilton	9,483	Bunbury	13,351
Orange	18,952	Colac	9,255	Geraldton	10,878
Lismore	18,927	Horsham	9,243	Albany	10,502
Campbelltown	18,649	Benalla	8,483	Collie(c)	7,545
Albury	18,617	Ararat	7,930	Northam	7,192
Bathurst	16,934	Sale	7,898	Tasmania.	
Grafton	15,533	Bairnsdale	7,418	Hobart and Suburbs(a)	115,887
Lithgow	14,222	Maryborough	7,237	Launceston and Suburbs(b)	56,837
Dubbo	14,130	Castlemaine	7,216	Burnie(c)	14,380
Shellharbour	13,370	Queensland.		Devonport(c)	13,053
Armidale	12,884	Brisbane and Suburbs(a)	620,121	Northern Territory.	
Woy Woy-Ettalong(c)	12,164	Townsville	51,224	Darwin	12,480
Windsor	12,015	Toowoomba	50,107	Australian Capital Territory.	
Taree	10,053	Ipswich	48,668	Canberra(a)	56,430
Queanbeyan	9,445	Rockhampton	44,102		
Cooma	8,722	Gold Coast	33,667		
Toronto(c)	8,510	Cairns	25,358		
Parkes	8,228	Bundaberg	22,791		
Inverell	8,202	Maryborough	19,136		
Casino	8,090	Mackay	16,795		
Kempsey	7,999	Mount Isa(c)	13,315		
Griffith(c)	7,709	Gympie	11,082		
Gosford(c)	7,315	Warwick	9,813		
Coff's Harbour(c)	7,179	Ayr(c)	8,006		
		Charters Towers	7,621		
		Dalby	7,394		
		Gladstone	7,182		

(a) Metropolitan Area.

(b) Entire Urban Area.

(c) Non-municipal town.

CHAPTER X.—VITAL STATISTICS.

§ 2. Marriages.

Age and Conjugal Condition at Marriage, p. 335.—A summary of the previous conjugal condition of bridegrooms and brides in 1960 in relation to age at marriage is as follows:—

AGE AND CONJUGAL CONDITION OF BRIDEGROOMS AND BRIDES:
AUSTRALIA, 1960.

Age at Marriage (Years).	Bridegrooms.				Brides.			
	Bachelors.	Widowers.	Divorced.	Total.	Spinsters.	Widows.	Divorced.	Total.
Under 20 ..	3,911	..	..	3,911	19,902	7	8	19,917
20-24 ..	33,881	9	50	33,940	34,602	86	299	34,987
25-29 ..	18,015	57	462	18,534	7,342	157	855	8,354
30-34 ..	7,121	127	889	8,137	2,603	280	1,161	4,044
35-39 ..	2,579	194	951	3,724	1,218	354	1,056	2,628
40-44 ..	1,042	243	726	2,011	572	456	721	1,749
45-49 ..	650	349	636	1,635	355	507	493	1,355
50-54 ..	337	375	401	1,113	218	450	240	908
55-59 ..	185	452	210	847	120	362	111	593
60-64 ..	97	417	100	614	81	331	40	452
65 and over ..	96	792	74	962	64	353	24	441
Total ..	67,914	3,015	4,499	75,428	67,077	3,343	5,008	75,428

In 1960, the proportional distribution (per cent.) of bridegrooms and brides according to previous conjugal condition was—

Bridegrooms: Bachelors, 90.04; Widowers, 4.00; Divorced, 5.96.

Brides: Spinsters, 88.93; Widows, 4.43; Divorced, 6.64.

In 1960, the average age of bridegrooms was 28.15 years and of brides 24.84 years.

Celebration of Marriages, p. 337.—The number of marriages in 1960 celebrated by ministers of religion in the various denominations or by civil officers was as follows:—

MARRIAGES IN EACH DENOMINATION, 1960.

Denomination.	REPUBLIC OF SOUTH AFRICA, 1960.								Australia.	
	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	No	Pro- portion of Total.
Church of England	9,339	4,803	2,815	1,341	1,550	975	40	130	20,993	27.83
Roman Catholic ..	7,824	5,954	2,793	1,411	1,411	564	54	128	20,139	26.70
Methodist	2,651	2,539	1,478	1,592	649	440	1	17	9,367	12.42
Presbyterian	2,927	3,121	1,728	282	365	138	21	27	8,609	11.41
Greek Orthodox ..	645	629	113	201	60	9	15	7	1,679	2.22
Baptist ..	444	319	190	149	68	61	1	3	1,235	1.64
Lutheran ..	166	277	263	383	20	6	3	7	1,125	1.49
Congregational ..	274	240	97	230	123	36	..	3	1,003	1.33
Churches of Christ	104	371	61	201	69	22	..	8	836	1.11
Salvation Army ..	118	87	106	36	39	27	8	..	421	0.56
Seventh-Day Ad- ventist ..	109	34	43	14	27	4	..	..	231	0.31
Unitarian ..	..	24	..	4	..	..	..	..	28	0.04
United Church ..	..	..	..	..	..	..	26	..	26	0.03
Other Christian ..	180	130	157	46	150	36	2	..	701	0.93
Hebrew ..	130	167	7	4	13	1	..	..	322	0.43
Other Non-Chris- tian ..	..	..	..	5	..	..	..	..	5	0.01
Total ..	24,911	18,695	9,851	5,899	4,544	2,319	171	330	66,720	88.46
Civil Officers	4,417	1,932	376	708	779	394	37	65	8,708	11.54
Grand Total ..	29,328	20,627	10,227	6,607	5,323	2,713	208	395	75,428	100.00

PROPORTION OF TOTAL.

(Per cent.)

Denominational ..	84.94	90.63	96.32	89.28	85.37	85.48	82.21	83.54	..	88.46
Civil ..	15.06	9.37	3.68	10.72	14.63	14.52	17.79	16.46	..	11.54

§ 4. Fertility and Reproduction.

Number of Live Births and Confinements, p. 338.—A summary of live births and confinements registered in 1960 is shown in the following table. The table also shows the confinements resulting in one or more live births. The figures exclude cases where the births were of still-born children only.

LIVE BIRTHS AND CONFINEMENTS, 1960.

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
LIVE BIRTHS.									
Single Births	80,204	62,565	34,443	20,500	16,568	8,675	748	1,542	225,245
Twins	1,762	1,449	747	460	353	178	26	41	5,016
Triplets	17	11	23	6	5	..	3	..	65
Males	42,231	32,825	18,164	10,760	8,699	4,483	416	837	118,415
Females	39,752	31,200	17,049	10,206	8,227	4,370	361	746	111,911
Total	81,983	64,025	35,213	20,966	16,926	8,853	777	1,583	230,326
STILLBIRTHS ASSOCIATED WITH MULTIPLE BIRTHS INCLUDED ABOVE.									
Twins	56	19	17	2	7	10	..	1	112
Triplets	4	1	1	..	1	..	..	..	7
CONFINEMENTS RESULTING IN BIRTHS SHOWN ABOVE.									
Nuptial	77,052	60,941	32,684	19,897	15,844	8,341	666	1,538	216,963
Ex-nuptial	4,068	2,362	2,149	836	906	428	96	25	10,870
Total	81,120	63,303	34,833	20,733	16,750	8,769	762	1,563	227,833

§ 5. Mortality.

Age Distribution, p. 363.—A summary of the ages at death for Australia for the year 1960 is given in the following table.

AGE AT DEATH: AUSTRALIA, 1960.

Age at Death.	Males.	Fe-males.	Per-sons.	Age at Death.	Males.	Fe-males.	Per-sons.
Under 1 week	1,682	1,271	2,953	5-9 years	291	205	496
1 week and under 2 weeks ..	118	97	215	10-14	252	150	402
2 weeks " " 3	76	41	117	15-19	512	197	709
3 " " " 28 days	58	28	86	20-24	546	185	731
Total under 28 days	1,934	1,437	3,371	25-29	513	221	734
28 days and under 3 months ..	217	163	380	30-34	666	351	1,017
3 months and under 6 "	245	187	432	35-39	846	562	1,408
6 " " " 12 "	255	205	460	40-44	1,208	798	2,006
Total under 1 year	2,651	1,992	4,643	45-49	1,919	1,239	3,158
1 year	219	214	433	50-54	2,846	1,440	4,286
2 years	136	122	258	55-59	3,852	1,886	5,738
3 "	106	74	180	60-64	4,904	2,796	7,700
4 "	61	63	124	65-69	6,308	4,166	10,474
Total under 5 years	3,173	2,465	5,638	70-74	7,231	5,251	12,482
				75-79	6,275	5,802	12,077
				80-84	4,551	5,469	10,020
				85-89	2,519	3,601	6,120
				90-94	973	1,642	2,615
				95-99	199	375	574
				100 and over	21	30	51
				Age not stated	24	4	28
Total, All Ages	49,629	38,835	88,464				

Causes of Death, p. 368.—The following table shows deaths of males, females and persons registered in 1960, classified according to the Abbreviated List of 50 Causes provided in the Seventh Revision of the International List.

CAUSES OF DEATH: AUSTRALIA, 1960.

ABBREVIATED LIST OF 50 CAUSES WITH CERTAIN SUB-DIVISIONS (BASED ON THE SEVENTH REVISION, 1955, OF THE INTERNATIONAL LIST).

Cause of Death.(a)		Detailed List Numbers.	Males.	Females.	Persons.
B 1	Tuberculosis of respiratory system	001-008	348	99	447
B 2	Tuberculosis, other forms	010-019	20	22	42
B 3	Syphilis and its sequelae	020-029	62	14	76
B 6	Dysentery, all forms	045-048	7	2	9
B 8	Diphtheria	055	..	2	2
B 9	Whooping cough	056	2	6	8
B10	Meningococcal infections	057	18	18	36
B12	Acute poliomyelitis	080	2	..	2
B14	Measles	085	8	8	16
B15	Typhus and other rickettsial diseases	100-108	..	1	1
B17	All other diseases classified as infective and parasitic	(b)	164	158	322
B18	Malignant neoplasms of:—				
	Digestive organs and peritoneum	150-159	2,687	2,325	5,012
	Lung	162, 163	1,450	216	1,666
	Breast	170	12	1,139	1,151
	Genital organs	171-179	854	1,012	1,866
	Urinary organs	180, 181	424	220	644
	Leukemia and aleukemia	204	336	254	590
B19	Other malignant and lymphatic neoplasms	(c)	1,444	926	2,370
	Benign and unspecified neoplasms	210-239	81	133	214
B20	Diabetes mellitus	260	469	719	1,188
B21	Anaemias	290-293	95	157	252
B22	Vascular lesions affecting central nervous system	330-334	5,183	6,659	11,842
B23	Non-meningococcal meningitis	340	73	47	120
B24	Rheumatic fever	400-402	17	20	37
B25	Chronic rheumatic heart disease	410-416	342	380	722
B26	Arteriosclerotic heart disease	420	13,482	7,463	20,945
B27	Degenerative heart disease	421, 422	2,521	2,856	5,377
B28	Other diseases of heart	430-434	1,517	1,385	2,902
B28	Hypertension with heart disease	440-443	792	1,089	1,881
B29	Hypertension without mention of heart	444-447	495	548	1,043
B30	Influenza	480-483	51	73	124
B31	Pneumonia	490-493	1,707	1,354	3,061
B32	Bronchitis	500-502	1,205	247	1,452
B33	Ulcer of stomach and duodenum	540, 541	477	205	682
B34	Appendicitis	550-553	69	33	102
B35	Intestinal obstruction and hernia	560, 561, 570	248	211	459
B36	Gastritis, duodenitis, enteritis and colitis, except diarrhoea of the newborn	543, 571, 572	241	212	453
B37	Cirrhosis of liver	581	313	180	493
B38	Nephritis and nephrosis	590-594	551	427	978
B39	Hyperplasia of prostate	610	417	..	417
B40	Complications of pregnancy, childbirth and the puerperium	640-652, 660	..	121	121
B41	Congenital malformations	670-689	661	561	1,222
B42	Birth injuries, post-natal asphyxia and atelectasis	750-759	706	489	1,195
B43	Infections of the newborn	760-762	90	56	146
B44	Other diseases peculiar to early infancy and immaturity unqualified	763-768	753	607	1,360
B45	Senility without mention of psychosis, ill-defined and unknown causes	769-776	392	502	894
B46	General Arteriosclerosis	780-795	1,017	1,090	2,107
	Other diseases of circulatory system	450	539	312	851
	Other diseases of respiratory system	451-468	623	268	891
	All other diseases	470-475, 510-527	2,030	1,997	4,027
BE47	Motor vehicle accidents	Residual	1,960	676	2,636
BE48	All other accidents	E810-E835	1,790	969	2,759
BE49	Suicide and self-inflicted injuries	E800-E802	778	314	1,092
BE50	Homicide and operations of war	E840-E962	106	53	159
		E963, E970-E979			
		E964, E965			
		E980-E999			
All Causes .. ..		..	49,629	38,835	88,464

(a) No deaths were recorded in the following categories for 1960:—B4, Typhoid Fever (040); B5, Cholera (043); B7 Scarlet Fever and Streptococcal Sore Throat (050, 051); B11, Plague (058); B13, Smallpox (084); B16, Malaria (110-117). (b) 030-039, 041, 042, 044, 049, 052-054, 059-074, 081-083, 086-096, 120-138. (c) 140-148, 160, 161, 164, 165, 190-203, 205.

CHAPTER XI.—HOUSING, ETC.

§ 4. New Building.

New Houses, p. 399.—The number of new houses commenced, completed and under construction in each State and Territory during 1960–61 was as follows:—

NEW HOUSES: NUMBER, 1960–61.

(Including Owner-built Houses.)

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.(a)	A.C.T.	Aust.
Approved ..	28,254	18,432	10,359	9,946	5,685	2,245	390	1,517	76,828
Commenced ..	27,654	18,517	9,198	9,268	5,693	2,248	415	1,177	74,170
Completed ..	29,778	22,094	9,391	9,376	5,973	2,487	403	1,273	80,775
Under construction at 30th June, 1961 ..	12,487	12,010	2,713	5,006	3,016	1,578	274	1,078	38,162

(a) Includes flats.

Of the 80,775 new houses completed during 1960–61, 35,789 had outerwalls of brick, brick veneer, concrete or stone, 24,764 of wood (weatherboard, etc.), 19,830 of fibro-cement and 395 of other materials.

New Flats, p. 402.—The following table shows the number of new flats commenced, completed and under construction in each State and the Australian Capital Territory during 1960–61.

NEW FLATS: NUMBER, 1960–61.

(Individual Flats.)

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	A.C.T.	Aust.(a)
Approved ..	8,447	5,156	1,554	756	433	152	262	16,760
Commenced ..	7,578	4,672	1,153	571	358	129	258	14,719
Completed ..	6,619	4,183	1,212	887	440	175	174	13,690
Under construction at 30th June, 1961 ..	4,849	3,311	751	319	151	94	264	9,739

(a) Excludes figures for the Northern Territory, which are not available for publication.

Value of New Buildings, p. 403.—The values of all new buildings commenced, completed and under construction in each State and Territory are shown in the following table for the year 1960–61.

NEW BUILDINGS: VALUE, 1960–61.

(Including Estimated Value of Owner-built Houses.)

(£'000.)

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Approved ..	225,275	165,902	73,413	66,821	36,067	15,177	2,980	16,414	602,049
Commenced ..	213,737	155,376	57,820	57,923	33,282	14,140	4,434	15,307	552,019
Completed ..	209,186	163,152	59,304	53,866	36,025	17,014	3,118	13,155	554,820
Under construction at 30th June, 1961 ..	157,932	122,187	29,961	41,727	20,922	12,964	3,410	18,080	407,183

The value of new buildings completed in Australia during 1960–61, according to kind of building, was as follows:—*Houses*—Brick, brick veneer, concrete and stone, £143,756,000; wood (weatherboard, etc.), £77,771,000; fibro-cement, £50,624,000; other, £1,243,000; Total, £273,394,000; *Other Buildings*—Flats, £40,322,000; hotels, guest-houses, etc. £14,580,000; shops, £23,145,000; factories, £64,788,000; offices, £32,344,000; other business

premises, £23,453,000; educational, £35,318,000; religious, £7,159,000; health, £14,072,000; entertainment and recreation, £9,749,000; miscellaneous, £16,496,000; Total Other Buildings, £281,426,000; Grand Total, New Buildings, £554,820,000.

Persons Engaged in New Building, p. 405.—The number of persons engaged on jobs carried out by builders of new buildings in Australia at 30th June, 1961, was as follows:—Carpenters, 44,403; bricklayers, 11,206; painters, 10,302; electricians, 6,052; plumbers, 9,849; builders' labourers, 19,746; other, 18,302; total, 119,860. Of this total, contractors actually working on jobs numbered 9,046, sub-contractors actually working on jobs 17,719 and wage earners 93,095.

CHAPTER XII.—LABOUR, WAGES AND PRICES.

A. RETAIL PRICES AND PRICE INDEXES.

§ 4. Tabular Statements of Retail Price Index Numbers.

The Consumer Price Index, p. 415.—The following table shows Consumer Price Index numbers for March and June quarters, 1961, for each capital city and the six capital cities combined for each Group and all Groups combined.

CONSUMER PRICE INDEX NUMBERS.(a)

(Base of each Index: Year 1952-53 = 100.0.)

Period.	Sydney.	Mel- bourne.	Brisbane.	Adelaide.	Perth.	Hobart.	Six Capital Cities.(b)
FOOD.							
March Quarter, 1961 ..	125.3	130.4	134.0	132.8	125.3	133.9	128.6
June " " ..	126.1	132.0	130.5	134.8	126.4	134.4	129.4
CLOTHING AND DRAPERY.							
March Quarter, 1961 ..	110.3	112.9	115.3	109.7	110.9	112.5	111.7
June " " ..	111.0	113.6	116.1	110.6	111.6	113.3	112.4
HOUSING.							
March Quarter, 1961 ..	140.7	152.5	138.4	151.1	143.5	158.0	145.7
June " " ..	144.4	154.9	139.0	151.3	144.8	158.9	148.0
HOUSEHOLD SUPPLIES AND EQUIPMENT.							
March Quarter, 1961 ..	111.8	112.3	111.5	105.9	107.4	120.8	111.3
June " " ..	112.4	113.1	112.3	106.7	107.0	121.9	111.9
MISCELLANEOUS.							
March Quarter, 1961 ..	127.4	129.2	129.7	121.6	125.8	126.7	127.5
June " " ..	127.7	129.3	130.3	121.4	125.6	126.5	127.7
ALL GROUPS.							
March Quarter, 1961 ..	122.5	126.1	126.7	123.4	121.9	128.3	124.2
June " " ..	123.4	127.1	126.1	124.3	122.4	128.9	125.0

(a) The index numbers measure price movements in each city individually and for the weighted average of the six capitals. They do not measure differences in price levels as between cities.
(b) Weighted average.

B. WHOLESALE PRICES AND PRICE INDEXES.

§ 2. Wholesale Price (Basic Materials and Foodstuffs) Index.

Index Numbers, p. 421.—Index numbers for each group of commodities and for all groups combined for the index of wholesale prices of basic materials and foodstuffs are shown below for the year 1960-61 and for the months April to June, 1961.

WHOLESALE PRICE (BASIC MATERIALS AND FOODSTUFFS) INDEX NUMBERS.

(Base of each Group: Average, 3 years ended June, 1939 = 100.)

Period.	Basic Materials.							Foodstuffs and Tobacco. (b)	Basic Materials and Foodstuffs.		
	Metals and Coal.	Oils, Fats and Waxes.	Textiles.	Chemicals.	Rubber and Hides.	Building Materials.	Total.		Goods principally Imported. (a)	Goods principally Home Produced. (b)	Total All Groups. (b)
1960-61	399	222	387	331	341	439	346	372	278	394	360
1961—											
April	395	221	413	332	325	439	346	371	277	394	359
May..	395	221	413	332	318	439	345	365	277	389	356
June	393	218	408	332	303	439	342	362	274	386	353

(a) Represents only such imported commodities as are included in the Wholesale Price Index and does not measure changes in prices of all imports. (b) The indexes for "Foodstuffs and Tobacco", "Goods Principally Home Produced" and "Total All Groups" have been reconstructed as from the base period by excluding potatoes and onions.

D. WAGES.

§ 2. Rates of Wage and Hours of Labour.

Weekly Rates of Wage, pp. 426-430.—The following table shows for each State and Australia the weighted average minimum weekly rates of wage payable, and the index numbers based thereon, for adult males and for adult females, at 31st March and 30th June, 1961, together with revised figures for 31st December, 1960. Revised particulars of minimum weekly wage rates for 1960 and earlier years were published in the Statistical Bulletin *Minimum Weekly Wage Rates, January, 1957 to June, 1961*, of 30th October, 1961.

WEEKLY WAGE RATES: ADULT MALES AND FEMALES.

WEIGHTED AVERAGE MINIMUM WEEKLY RATES PAYABLE FOR A FULL WEEK'S WORK
(EXCLUDING OVERTIME) AND INDEX NUMBERS OF WAGE RATES.

Date.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
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ADULT MALES—RATES OF WAGE.

	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
31st December, 1960..	362 8	349 10	350 8	342 1	358 1	351 11	354 11
31st March, 1961 ..	365 2	350 1	354 1	342 3	360 1	352 8	356 7
30th June, 1961 ..	366 8	350 3	357 4	342 3	362 5	352 9	357 10

ADULT MALES—INDEX NUMBERS.

(Base: Weighted Average Weekly Wage Rate for Australia, 1954=100.0)

	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
31st December, 1960..	128.4	123.9	124.2	121.1	126.8	124.6	125.7
31st March, 1961 ..	129.3	124.0	125.4	121.2	127.5	124.9	126.3
30th June, 1961 ..	129.8	124.9	126.5	121.2	128.3	124.9	126.7

ADULT FEMALES—RATES OF WAGE.

	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
31st December, 1960..	261 3	246 7	239 4	242 10	251 2	238 9	251 8
31st March, 1961 ..	262 10	246 8	241 6	242 10	252 4	239 2	252 7
30th June, 1961 ..	263 9	246 8	253 0	242 10	254 8	239 2	254 5

ADULT FEMALES—INDEX NUMBERS.

(Base: Weighted Average Weekly Wage Rate for Australia, 1954=100.0)

	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
31st December, 1960..	131.2	123.9	120.2	122.0	126.2	119.9	126.4
31st March, 1961 ..	132.0	123.9	121.3	122.0	126.7	120.1	126.9
30th June, 1961 ..	132.5	123.9	127.1	122.0	127.9	120.1	127.8

§ 3. Average Weekly Earnings.

Average Weekly Total Wages and Salaries Paid and Average Earnings, All Industries, p. 433.—The following table shows for each State and Australia the average weekly total wages and salaries paid, and average weekly earnings per employed male unit, for the year ended June, 1961.

AVERAGE WEEKLY TOTAL WAGES AND SALARIES PAID AND AVERAGE EARNINGS(a), 1960-61.

N.S.W.(b)	Victoria.	Queensland.	S. Aust.(c)	W. Aust.	Tasmania.	Australia.
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AVERAGE WEEKLY TOTAL WAGES AND SALARIES PAID. (£'000.)

26,884	19,198	7,853	5,670	3,891	1,952	65,448
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AVERAGE WEEKLY EARNINGS PER EMPLOYED MALE UNIT.(d) (£.)

24.04	23.34	21.02	21.39	20.59	21.32	22.89
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(a) Includes, in addition to wages at award rates, earnings of salaried employees, overtime earnings, over-award and bonus payments, etc. (b) Includes the Australian Capital Territory. (c) Includes the Northern Territory. (d) Total wages and salaries, etc., divided by total civilian employment expressed in male units. Male units represent total male employment plus a proportion of female employment based on the approximate ratio of female to male earnings. As it is not possible to estimate the ratio of female to male earnings in the several States, the same ratio has been used in each State. Because the actual ratio may vary between States, precise comparisons between average earnings in different States cannot be made on the basis of the figures above.

Average Weekly Earnings Index Numbers, p. 433.—The average weekly wage earnings index numbers for Australia for All Industries and Manufacturing (Base of each series: 1953-54 = 100.0—seasonally adjusted series) for June quarter, 1961 and the year ended June, 1961, were respectively:—All Industries, 141.2, 140.6; Manufacturing, 140.1, 141.0. Revised figures for All Industries for 1958-59 and 1959-60, respectively, were 124.5 and 133.6. No changes were made to the quarterly figures shown.

§ 4. Survey of Wage Rates and Earnings, September, 1960, p. 434.

1. General.—A statistical survey of the wage structure of Australia was undertaken by this Bureau towards the end of 1960. The object of the survey was to obtain information as to marginal rates of wage and actual weekly earnings of adult male employees (excluding part-time and casual employees) for the last pay-period in September, 1960.

The survey was based on returns from a stratified sample of most of the private employers subject to Pay-roll Tax. It did not include governmental or semi-governmental employment. For various reasons (such as paucity of data, seasonal variations in employment, incidence of piece work, part-time and casual employment), it excluded the following:—rural industry; private domestic service; certain businesses such as accountants, trade associations, consultant engineers, etc.; the shipping and stevedoring industry; and the motion picture industry. Religious, benevolent and other similar bodies, exempt from Pay-roll Tax, were also excluded.

Employers were asked to show separate particulars in respect of employees covered by Commonwealth awards and by State awards, and of those not covered by any award. Completed returns were received from more than 3,000 employers, representing a response rate of about 90 per cent. of those approached. The sample, being stratified, provided a representative basis upon which to estimate marginal rates of wage and earnings by industrial groups for the (approximately) 1,105,000 adult male employees within the selected field. (*see above*). These were cross-classified to show the number of employees in size groups by industry and jurisdiction in respect of marginal rates and in size groups by industry in respect of earnings.

Definitions relevant to the survey are as follows:—

- (a) *Number of employees* refers to adult male employees on the pay-roll on the last pay-day in September, 1960, and includes employees who, although under 21 years of age, were paid at the adult rate prescribed in the appropriate award. Part-time and casual employees and those absent in the defence forces were excluded.
- (b) The term *awards*, as used herein, denotes awards or determinations of, or agreements registered with, Commonwealth or State industrial tribunals. Employees whose rates of pay and working conditions were not regulated by awards, and employees covered by formal, though unregistered, agreements between employee organizations and employers, are shown as "not covered by awards".
- (c) *Margins* are minimum amounts, in addition to the basic wage, awarded to particular classifications of employees for features attaching to their work, such as skill, experience, arduousness or other like factors. For the purposes of this survey the following were not included in margins:—special allowances prescribed in awards, such as shift, dirt, and height money, leading hand allowances, etc.; and other payments such as commission, payments above the minimum rate for contract and piece work, etc. (*see paragraphs 1 (e) and 1 (g) below and also § 6. Wage Margins, p. 454*). In the case of contract work, etc., the margin was determined by the minimum amount prescribed in the award for the class of work performed. Where the marginal rate of wage for an occupation was not specified in an award, the margin was assumed to be the difference between the total minimum prescribed rate of wage for the occupation and the appropriate Commonwealth or State basic wage. For employees not covered by awards, and whose margins were not specified in unregistered agreements, the margin was assumed to be the difference between the appropriate basic wage in the State jurisdiction and the agreed rate of pay for a standard working week (or the weekly equivalent of the agreed rate).
- (d) *Total Weekly Earnings* include ordinary time earnings at award rates (and, for employees not covered by awards, payments at agreed rates for a standard working week), overtime earnings and all other payments. Annual or other periodical bonuses were included only at the appropriate proportion for one week. For employees paid other than weekly, only the proportion of earnings for one week was included.
- (e) *Ordinary Time Earnings at Award Rates* represent the total weekly payment to adult male employees (excluding part-time and casual employees) for hours of work paid for up to the standard or award hours, calculated at award rates of pay. It includes payments for sick leave, proportion of annual leave, special allowances prescribed in awards, etc. (*see sub. para. (c) above*). For employees not covered by awards, it includes payments at agreed rates for a standard working week.
- (f) *Overtime Earnings* represent the total weekly payment to adult male employees (excluding part-time and casual employees) for time worked in excess of award or agreed hours.

(g) *Other Earnings* include all payments other than those in paragraphs (e) and (f) above, such as commission, payments above the minimum rate for contract work, incentive scheme, piece-work and profit-sharing scheme payments, proportion of annual or other periodical bonuses, points system payments, attendance or good time-keeping bonuses, etc. (see sub. para. (c) above).

2. *Marginal Rates of Wage.*—(i) *Industrial Groups.* In the following table, adult male employees in each of the main industrial groups are classified according to weekly margin above the basic wage.

ADULT MALE EMPLOYEES (EXCLUDING PART-TIME AND CASUAL EMPLOYEES) CLASSIFIED ACCORDING TO MARGINAL RATES OF WAGE: INDUSTRIAL GROUPS, AUSTRALIA, SEPTEMBER, 1960.(a)

(Subject to Revision.)

Weekly Margin.(b)	Manufacturing.			Building and Construction. (c)	Wholesale and Retail Trade.	Other Industries.	Total.
	Engineering, Metal Works, etc.	Other Manufacturing.	Total Manufacturing.				

NUMBER OF EMPLOYEES ('000).(b)

Amount above Basic Wage—							
Less than 20s. (incl. nil)	6.1	9.0	15.1	0.9	3.3	6.1	25.4
20s. and less than 30s.	32.6	21.0	53.6	4.6	4.6	9.9	72.7
30s. " " " 40s.	26.2	25.7	51.9	2.9	5.5	6.5	66.8
40s. " " " 60s.	41.3	68.3	109.6	7.0	31.4	19.5	167.5
60s. " " " 80s.	37.5	54.0	91.5	12.1	48.0	21.5	173.1
80s. " " " 100s.	65.7	51.2	116.9	11.6	30.4	28.3	187.2
100s. " " " 120s.	26.9	29.5	56.4	10.5	22.9	17.8	107.6
120s. and over ..	52.5	87.8	140.3	31.3	68.5	64.2	304.3
Total	288.8	346.5	635.3	80.9	214.6	173.8	1,104.6

PROPORTION OF TOTAL (PER CENT.).

Amount above Basic Wage—							
Less than 20s. (incl. nil)	2.1	2.5	2.4	1.2	1.6	3.5	2.3
20s. and less than 30s.	11.3	6.1	8.4	5.6	2.1	5.7	6.6
30s. " " " 40s.	9.1	7.4	8.2	3.5	2.6	3.7	6.0
40s. " " " 60s.	14.3	19.7	17.2	8.6	14.6	11.2	15.2
60s. " " " 80s.	13.0	15.6	14.4	15.0	22.4	12.4	15.7
80s. " " " 100s.	22.7	14.8	18.4	14.4	14.2	16.3	17.0
100s. " " " 120s.	9.3	8.5	8.9	13.0	10.6	10.3	9.7
120s. and over ..	18.2	25.4	22.1	38.7	31.9	36.9	27.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

(a) See page 1214 for particulars of the coverage of the Survey. (b) For definitions, see page 1215.
(c) For some employees, allowances for sick leave, public holidays, etc. have been included in the marginal rates shown.

(ii) *Jurisdiction.* In the following table, adult male employees are classified according to weekly margin above the basic wage, separate particulars being shown for employees under Commonwealth or State jurisdiction and for those not covered by awards.

**ADULT MALE EMPLOYEES (EXCLUDING PART-TIME AND CASUAL EMPLOYEES)
CLASSIFIED ACCORDING TO MARGINAL RATES OF WAGE: JURISDICTION,
AUSTRALIA, SEPTEMBER, 1960.(a)**

(Subject to Revision.)

Weekly Margin.(b)	Number of Employees ('000).(b)				Proportion of Total (Per Cent.).			
	Under Common- wealth Awards.	Under State Awards.	Not Covered by Awards.	Total.	Under Common- wealth Awards.	Under State Awards.	Not Covered by Awards.	Total.
Amount above Basic Wage—								
Less than 20s. (incl. nil) ..	12.2	11.4	1.8	25.4	2.7	2.4	1.0	2.3
20s. and less than 30s. ..	42.3	29.5	0.9	72.7	9.3	6.2	0.5	6.6
30s. " " " 40s. ..	32.6	32.7	1.5	66.8	7.2	6.9	0.8	6.0
40s. " " " 60s. ..	73.5	91.2	2.8	167.5	16.2	19.2	1.6	15.2
60s. " " " 80s. ..	72.1	96.7	4.3	173.1	15.9	20.4	2.5	15.7
80s. " " " 100s. ..	110.8	71.8	4.6	187.2	24.4	15.1	2.6	17.0
100s. " " " 120s. ..	48.0	54.0	5.6	107.6	10.6	11.4	3.2	9.7
120s. and over ..	61.9	87.3	155.1	304.3	13.7	18.4	87.8	27.5
Total ..	453.4	474.6	176.6	1,104.6	100.0	100.0	100.0	100.0

(a) See page 1214 for particulars of the coverage of the survey.

(b) For definitions, see page 1215.

3. Total Weekly Earnings.—(i) *Ordinary Time, Overtime and Other Earnings.* In the following table, the total wages and salaries paid to adult male employees during the last pay-week in September, 1960, are shown for the main industrial groups, separate particulars being given for ordinary time earnings at award rates, overtime earnings and all other earnings.

**TOTAL WAGES AND SALARIES PAID TO ADULT MALE EMPLOYEES
(EXCLUDING PART-TIME AND CASUAL EMPLOYEES) DURING LAST
PAY-WEEK IN SEPTEMBER, 1960: INDUSTRIAL GROUPS, AUSTRALIA.(a)**
(Subject to Revision.)

Industrial Group.	Ordinary Time Earnings at Award Rates. (b)	Overtime Earnings.(b)	Other Earnings.(b)	Total.
(£'000.)				
<i>Manufacturing—</i>				
Engineering, Metal Works, etc.	5,469	1,012	724	7,205
Other Manufacturing ..	6,961	849	700	8,510
Total Manufacturing ..	12,430	1,861	1,424	15,715
Building and Construction ..	1,061	150	92	1,303
Wholesale and Retail Trade ..	4,521	238	425	5,184
Other Industries ..	4,448	493	552	5,493
Total ..	22,460	2,742	2,493	27,695

PROPORTION OF TOTAL (PER CENT.).

<i>Manufacturing—</i>				
Engineering, Metal Works, etc.	75.9	14.0	10.1	100.0
Other Manufacturing ..	81.8	10.0	8.2	100.0
Total Manufacturing ..	79.1	11.8	9.1	100.0
Building and Construction ..	81.4	11.5	7.1	100.0
Wholesale and Retail Trade ..	87.2	4.6	8.2	100.0
Other Industries ..	81.0	9.0	10.0	100.0
Total ..	81.1	9.9	9.0	100.0

(a) See page 1214 for particulars of the coverage of the Survey.

(b) For definitions, see page 1215.

(ii) *Industrial Groups.* Adult male employees in the main industrial groups covered by the survey are classified in the following table according to total weekly earnings.

ADULT MALE EMPLOYEES (EXCLUDING PART-TIME AND CASUAL EMPLOYEES) CLASSIFIED ACCORDING TO TOTAL WEEKLY EARNINGS: INDUSTRIAL GROUPS, AUSTRALIA, SEPTEMBER, 1960.(a)

(Subject to Revision.)

Total Weekly Earnings.(b)	Manufacturing.			Building and Construc- tion.	Wholesale and Retail Trade.	Other Industries.	Total.
	Engi- neering, Metal Works, etc.	Other Manu- facturing.	Total Manu- facturing.				

NUMBER OF EMPLOYEES ('000).(b)

Less than £14(c)	..	6.6	7.2	13.8	1.7	1.7	1.9	19.1
£14 and less than £16	..	8.9	16.7	25.6	1.4	4.4	5.0	36.4
£16 " " " £18	..	23.9	44.7	68.6	5.2	37.4	16.0	127.2
£18 " " " £20	..	33.4	55.1	88.5	9.0	42.2	21.3	161.0
£20 " " " £22	..	37.9	47.8	85.7	11.0	31.9	20.2	148.8
£22 " " " £24	..	36.3	38.5	74.8	14.3	23.1	18.3	130.5
£24 " " " £26	..	30.5	34.2	64.7	8.0	17.1	17.4	107.2
£26 " " " £30	..	47.7	40.8	88.5	11.5	23.6	26.0	149.6
£30 " " " £35	..	34.3	29.0	63.3	9.7	14.4	21.5	108.9
£35 and over	..	29.3	32.5	61.8	9.1	18.8	26.2	115.9
Total	..	288.8	346.5	635.3	80.9	214.6	173.8	1,104.6

PROPORTION OF TOTAL (PER CENT.).

Less than £14(c)	..	2.3	2.1	2.2	2.2	0.8	1.1	1.7
£14 and less than £16	..	3.1	4.8	4.0	1.7	2.0	2.9	3.3
£16 " " " £18	..	8.3	12.9	10.8	6.5	17.4	9.2	11.5
£18 " " " £20	..	11.6	15.9	13.9	11.1	19.7	12.3	14.6
£20 " " " £22	..	13.2	13.8	13.5	13.6	14.9	11.6	13.5
£22 " " " £24	..	12.6	11.1	11.8	17.7	10.7	10.5	11.8
£24 " " " £26	..	10.4	9.9	10.2	9.8	8.0	10.0	9.7
£26 " " " £30	..	16.5	11.8	13.9	14.2	11.0	14.9	13.5
£30 " " " £35	..	11.9	8.3	10.0	12.0	6.7	12.4	9.9
£35 and over	..	10.1	9.4	9.7	11.2	8.8	15.1	10.5
Total	..	100.0	100.0	100.0	100.0	100.0	100.0	100.0

(a) See page 1214, for particulars of the coverage of the survey. (b) For definitions, see page 1215.
(c) Inquiry indicated that many of the adult males in this group were absent for part of the week.

§ 5. Basic Wages in Australia.

Basic Wage Inquiry, 1961, p. 447.—In this case, two applications to vary the Metal Trades Award were before the Commission. In the first, the employers sought to increase the number of ordinary working hours per week from 40 to 42, with a concomitant increase in weekly wages by an amount equivalent to two hours pay at ordinary rates, and to effect certain other consequential variations. In the second, the unions applied for an increase in the basic wage on a six capital cities basis by the amount of 49s. (which was amended during the hearing to 52s.) and for the re-introduction of automatic quarterly adjustments based on the "C" Series Retail Price Index. The amount claimed represented 27s. (30s.) for cost of living increases since 1953 and 22s. to reflect increases in productivity since that time.

The inquiry opened on 14th February, 1961, before Kirby *C.J.*, Ashburner and Moore *JJ.*, and the judgment was delivered on 4th July, 1961.

The following is an extract from a statement made by Kirby *C.J.* on 4th July, 1961:—

"The members of the bench have reached unanimous decisions which, with the reasons for the decisions, are published in the judgment which is now handed down.
Decisions—

1. The employers' claim for an increase in the standard hours of work from forty to forty-two with a concomitant increase in the weekly wage equivalent to two hour's pay at ordinary rates is refused.
2. The unions' claim for restoration of automatic quarterly adjustments is refused.
3. The basic wages of adult male employees covered by federal awards will be increased by a uniform amount of 12s. per week.
4. The new rates will come into effect from the beginning of the first pay-period commencing on or after 7th July instant subject to special cases.
5. For the specific reasons set out in the judgment we consider that in February next the only issue in regard to the basic wage should be why the money wages fixed as a result of our decision should not be adjusted in accordance with any change in the Consumer Price Index, and for the purpose of deciding that issue the Order giving effect to the decisions hereby announced will also provide for the adjournment of the application of the unions for increase of the basic wages under the Metal Trades Award to Tuesday, 19th February, 1962, in Melbourne, when such submissions thereon as are desired to be made will be heard.
6. The decision regarding increases in basic wages is applicable to all the applications which have been ordered by the Commission to be joined for hearing and decision with the original application and those joined applications are stood over to a date after 19th February, 1962, to be fixed by the Commission."

In the Metal Trades Award and in federal awards generally, the basic wage for adult females was increased by 9s. a week. Proportionate increases for juniors and apprentices were also granted.

The effect of the decision in para. 5 above was set out in more detail in the reasons for judgment. After giving reasons why it was not prepared to restore the system of automatic quarterly adjustments and for its preference for the Consumer Price Index over the "C" Series Index, the Commission made the following statement:—

"We consider it desirable that the application of the Consumer Price Index should always be subject to control by the Commission and that the Commission should be able to decide whether a particular increase or decrease in the figures as disclosed in the Consumer Price Index should be applied to the basic wage. Our present opinion is

that this consideration of prices should take place annually. We will each year make the assumption that the effect of movements in the Consumer Price Index should be reflected in the basic wage unless we are persuaded to the contrary by those seeking to oppose the change. As the basis of our decision is the desirability of maintaining the value of the real wage based on the concept of national capacity, the appropriate matter for consideration would appear to be what should be the effect on the six capital cities basic wage of movements in the six capital cities index. The resulting figure will be applied to all federal basic wages.

Since such a consideration of price movements is to take place annually the question remains whether the Commission should at the annual hearing continue to review all factors in the economy to decide whether or not to change the level of the real basic wage. It seems to us that once the question of prices is dealt with otherwise a review of the economy generally and in particular of productivity increases could more properly take place at longer periods of time, say, every three or four years."

State Basic Wage Rates, p. 454.—The table below shows the "basic" weekly wage rates of State industrial tribunals, operative in August, 1961.

STATE BASIC WAGE: WEEKLY RATES, AUGUST, 1961.

State and Area.	Date of Operation.	Males.	Females.
		<i>s. d.</i>	<i>s. d.</i>
New South Wales—			
Metropolitan and Country, excluding Broken Hill ..	(a)	302 0	226 6
Broken Hill	(a)	297 0	222 6
Victoria(b)	(c)	287 0	215 0
Queensland—			
Southern Division—			
Eastern District, including Brisbane	29.5.61	284 0	213 0
Western District	29.5.61	294 6	221 0
Mackay Division	29.5.61	293 0	219 9
Northern Division—			
Eastern District	29.5.61	294 6	221 0
Western District	29.5.61	316 6	237 6
South Australia(d)	10.7.61	283 0	212 0
Western Australia—			
Metropolitan Area	31.7.61	300 6	225 5
South-West Land Division	31.7.61	298 11	224 2
Goldfields and other areas	31.7.61	293 2	219 11
Tasmania(b)	(e)	294 0	220 6

(a) From beginning of first pay-period commencing in August, 1961. (b) No basic wage declared. Rates shown are those adopted by most Wages Boards. (c) During July and August, 1961, Wages Boards varied determinations by adopting the Commonwealth basic wage rate. (d) The "living wage" declared for the metropolitan area is also adopted for country areas, except at Whyalla and Iron Knob, where a loading of 5s. a week is generally payable. (e) Most Wages Boards adopted the Commonwealth basic wage rate from July, 1961.

E. EMPLOYMENT AND UNEMPLOYMENT.

§ 1. Employment.

Wage and Salary Earners in Civilian Employment, pp. 462-4.—The following are particulars of wage and salary earners in civilian employment, excluding rural wage earners, female private domestics and defence forces, for the month of June, 1961.

WAGE AND SALARY EARNERS IN CIVILIAN EMPLOYMENT, JUNE, 1961.

(Excluding Rural Wage Earners, Female Private Domestics and Defence Forces.)
(’000.)

Industrial Group.	Males.	Fe- males.	Per- sons.	State or Territory.	Males.	Fe- males.	Per- sons.
Mining and Quarrying ..	48.6	1.2	49.8	New South Wales ..	844.2	336.2	1,180.4
Manufacturing, etc.(a) ..	882.1	254.3	1,136.4	Victoria ..	618.2	262.0	880.2
Building and Con- struction ..	205.3	6.3	211.6	Queensland ..	284.4	100.3	384.7
Transport ..	244.2	22.2	266.4	South Australia ..	195.3	69.6	264.9
Communication ..	72.2	19.3	91.5	Western Australia ..	142.1	49.7	191.8
Property and Finance ..	77.0	54.4	131.4	Tasmania ..	68.7	24.1	92.8
Retail Trade ..	135.3	133.5	268.8	Northern Territory ..	6.4	1.8	8.2
Wholesale and other Commerce ..	158.7	49.9	208.6	Aust. Capital Territory	13.5	5.3	18.8
Public Authority Ac- tivities, n.e.i. ..	108.5	32.8	141.3				
Health ..	29.9	95.0	124.9				
Education ..	56.2	69.5	125.7				
Amusement, Hotels, Per- sonal Service, etc. ..	75.5	76.8	152.3				
Other ..	79.3	33.8	113.1				
Total ..	2,172.8	849.0	3,021.8				
Government(b) ..	649.9	157.6	807.5				
Private ..	1,522.9	691.4	2,214.3				
Total ..	2,172.8	849.0	3,021.8	Total ..	2,172.8	849.0	3,021.8

(a) Subject to revision. See footnote (a) on p. 463, also text preceding table on p. 462.
(b) Includes all employees of Government Authorities (Commonwealth, State, Local and Semi-Governmental) on services such as railways, tramways, banks, post office, air transport, education, broadcasting, television, police, public works, factories and munitions establishments, migrant hostels, etc., as well as administrative employees, within Australia.

Government Employees, p. 465.—The number of Government employees in Australia (including employees of semi-Government authorities) in June, 1961, was as follows:—Commonwealth Government—males, 177,278; females, 48,663; persons, 225,941; State Government authorities—males, 396,382; females, 101,074; persons, 497,456; Local Government authorities—males, 76,237; females, 7,864; persons, 84,101; Total—males, 649,897; females, 157,601; persons, 807,498.

CHAPTER XIII.—TRADE.

NOTE.—Values are expressed in £A. f.o.b., port of shipment.

§ 7. Total Oversea Trade.

Summary of Movements, p. 494.—The following are preliminary figures of the total overseas trade of Australia during the year 1960–61:—Merchandise—Exports, £928,992,023; Imports, £1,085,441,590; Commodity balance, — £156,449,567; Bullion and Specie—Exports, £40,803,455; Imports, £2,246,007; Balance, + £38,557,448; Total balance, — £117,892,119.

§ 8. Direction of Oversea Trade.

According to Countries, p. 495.—The following table shows particulars of the values of total imports and total exports of Australia, including bullion and specie, according to countries of origin or consignment, for the year 1960–61.

**TOTAL OVERSEA TRADE, AUSTRALIA: COUNTRIES OF ORIGIN OR
CONSIGNMENT, 1960-61.**

(£'000.)

Country.	Imports.	Exports	Country.	Imports.	Exports.
United Kingdom	340,584	231,701	China, Republic of—Mainland	3,970	40,108
Australian Territories—			Czechoslovakia	3,078	6,252
New Guinea	6,241	11,503	France	16,721	51,096
Papua	1,287	6,334	Germany, Federal Republic ..	66,185	26,635
Brunei	6,877	87	Indonesia	28,105	5,133
Canada	45,665	17,026	Iran	18,222	2,191
Ceylon	10,165	7,189	Iraq	4,555	7,729
Hong Kong	6,237	18,791	Italy	15,787	47,542
India	22,706	13,871	Japan	65,462	161,781
Malaya, Federation of ..	15,189	12,008	Mexico	1,942	4,408
New Zealand	17,392	61,975	Netherlands	17,010	6,065
Pakistan	5,502	4,921	Norway	4,704	1,466
Singapore	1,804	12,202	Poland	392	7,931
South Africa, Union of ..	9,229	7,331	Sweden	17,936	2,333
Other Commonwealth Countries	27,216	28,959	Switzerland	13,765	2,106
<i>Total, Commonwealth Countries</i>	<i>516,094</i>	<i>433,898</i>	United States of America ..	217,039	72,576
Arabian States	35,527	3,764	Other Foreign Countries(a) ..	26,086	62,410
Austria	3,932	1,600	<i>Total, Foreign Countries</i>	<i>571,594</i>	<i>535,898</i>
Belgium-Luxembourg ..	11,176	22,772	<i>Total, All Countries ..</i>	<i>1,087,688</i>	<i>969,796</i>

(a) Includes shipments made "for orders" and imports of unknown origin.

According to Monetary Groups, p. 497.—The following table shows the trade of Australia during 1960-61 according to monetary groups.

**OVERSEA TRADE OF AUSTRALIA ACCORDING TO MONETARY GROUPS(a),
1960-61.(b)**

Monetary Group.	£'000.	Monetary Group.	£'000.
STERLING.		OTHER NON-STERLING.	
Imports—		Imports—	
From—United Kingdom ..	340,581	From—Countries of the E.E.C ..	128,094
Other Sterling Area Countries ..	154,846	Countries of the O.E.E.C ..	47,385
Total	495,427	Other Countries	149,519
Exports—		Total	324,998
To—United Kingdom ..	231,836	Exports—	
Other Sterling Area Countries ..	187,342	To—Countries of the E.E.C ..	159,156
Total	419,178	Countries of the O.E.E.C ..	19,618
Excess of Exports (+) or Imports (—)	—76,249	Other Countries	272,844
		Total	451,618
DOLLAR.		Excess of Exports (+) or Imports (—)	+126,620
Imports—			
From—United States of America ..	217,051	ALL MONETARY GROUPS.	
Canada	45,661	Total Imports	1,087,688
Other Dollar Area Countries	4,551	Total Exports	969,796
Total	267,263	Excess of Exports (+) or Imports (—)	+117,892
Exports—			
To—United States of America ..	72,574		
Canada	17,026		
Other Dollar Area Countries ..	9,400		
Total	99,000		
Excess of Exports (+) or Imports (—)	—168,263		

(a) For a list of the countries in each monetary group, see page 496.
Figures in some cases differ slightly from those in preceding table.

(b) Preliminary.

§ 12. Classified Summary of Australian Oversea Trade.

Imports and Exports in Statistical Classes, p. 502.—The following table shows the values of total imports and total exports in statistical classes for the year 1960–61.

TOTAL OVERSEA TRADE, AUSTRALIA: CLASSES, 1960-61.(a)
(£'000.)

Class.	Imports.	Exports.	Class.	Imports.	Exports.
I. Animal foodstuffs, etc. . .	13,334	117,853	XIII. Rubber and leather, etc.	25,529	4,501
II. Vegetable foodstuffs; non-alcoholic beverages, etc. . .	30,284	219,980	XIV. Wood and wicker, etc.	23,825	3,791
III. Alcoholic liquors, etc. . .	3,869	2,248	XV. Earthenware, etc. . .	20,797	1,267
IV. Tobacco, etc. . .	13,362	416	XVI. Paper and stationery . .	70,205	3,939
V. Live animals . .	715	1,453	XVII. Jewellery, etc. . .	13,019	2,148
VI. Animal substances, etc. . .	6,724	363,318	XVIII. Optical, surgical and scientific instruments	17,495	3,182
VII. Vegetable substances, etc.	20,725	972	XIX. Chemicals, medicinal products, fertilizers, etc. . .	56,844	9,018
VIII. Apparel, textiles, etc. . .	132,231	3,654	XX. Miscellaneous . .	73,469	30,753
IX. Oils, fats and waxes . .	111,649	26,746	XXI. Gold and silver; bronze specie . .	2,246	40,804
X. Pigments, paints and varnishes . .	6,787	1,233	Total . .	1,087,688	969,796
XI. Rocks, minerals, etc. . .	8,680	38,042			
XII. Metals, metal manufactures and machinery . .	435,899	94,478			

(a) Preliminary.

Imports of Principal Articles, p. 503.—The following table shows the values of the principal articles imported into Australia during 1960–61.

PRINCIPAL ARTICLES IMPORTED: AUSTRALIA, 1960-61.(a)

Article.	Value (£'000).
Aircraft and Parts	13,806
Apparel	15,251
Arms, explosives, military stores, etc.	6,768
Bags and sacks	13,390
Chemicals, medicinal and pharmaceutical products, essential oils and fertilizers	56,844
Cotton raw, excluding linters and waste	6,007
Electrical machinery, appliances and equipment	47,677
Fibres, excluding cotton(b)	7,784
Glass and glassware	9,832
Iron and steel—	
Bar and rod	13,296
Plate and sheet	28,062
Machines and machinery—	
Motive power	47,556
Other	119,513
Motor vehicles complete; components and parts	91,107
Paper, printings	23,703
Petroleum and shale oils	104,509
Piece-goods—	
Cotton and linen	45,462
Other	24,322
Synthetic resins	11,641
Rubber and rubber manufactures	23,634
Stationery and paper manufactures	17,514
Tea	12,824
Timber, undressed, including logs	19,349
Tobacco	12,058
All other articles	315,779
Total Imports	1,087,688

(a) Preliminary. (b) Figures for "Fibres" on p. 503 include "Cotton, raw", also shown separately. Excluding raw cotton, figures for "Fibres" are—1957–58, £6,628,000; 1958–59, £7,724,000; 1959–60, £7,696,000. Figures for "All other articles" on p. 504 should be amended to read—1957–58, £189,968,000; 1958–59, £182,159,000; 1959–60, £211,556,000.

Exports of Principal Articles of Australian Produce, p. 504.—The following table shows the quantities and values of the principal articles of Australian produce exported during 1960-61.

EXPORTS OF PRINCIPAL ARTICLES OF AUSTRALIAN PRODUCE, 1960-61.(a)

Article.	Unit of Quantity.	Quantity.	Value.(£'000.)
Butter	ton	61,141	19,639
Cheese	"	18,037	4,845
Chemicals, drugs, fertilizers	"	..	8,471
Fruit—			
Dried	ton	59,948	9,096
Fresh, including frozen	'000 bus.	7,459	10,369
Preserved in airtight containers	ton	68,217	9,813
Gold .. .. .	..	..	39,955
Grains and cereals—			
Barley	ton	756,804	14,331
Flour (wheaten), plain white	ton(b)	658,404	18,977
Wheat	ton	4,099,371	102,137
Hides and skins .. .. .	..	..	27,194
Lead, unwrought, n.e.i.	ton	124,222	10,352
Machines and machinery (except dynamo electrical) .. .. .	..	..	10,769
Meats preserved by cold process—			
Beef and veal	ton	134,319	40,184
Lamb	"	28,765	5,798
Mutton	"	37,086	7,464
Pork	"	440	187
Meats, tinned	"	32,344	11,869
Milk and cream	'000 lb.	108,786	9,185
Ores and concentrates	ton	972,229	27,894
Sugar (from cane)	"	796,475	35,071
Wool (c)	'000 lb.	1,472,973	334,792
All other articles .. .. .	..	..	185,133
Total Exports (Australian Produce) .. .. .	..	..	943,525

(a) Preliminary.

(b) 2,000 lb.

(c) Quantity in terms of greasy wool.

§ 16. Australian Index of Export Prices.

Monthly Index (Fixed Weights), p. 511.—The following are the export price index numbers for the year 1960-61 and for the months April to June, 1961.

EXPORT PRICE INDEXES: AUSTRALIA.

SIMPLE AGGREGATIVE INDEX: FIXED WEIGHTS.

INDIVIDUAL COMMODITIES, GROUPS OF COMMODITIES, AND ALL GROUPS COMBINED.

(Base of each Index: Average of three years ended June, 1939 = 100.)

Period.	Wool.	Wheat.	Butter.	Metals. (a)	Meats. (b)	Sugar.	Dried Fruits. (c)	Tallow.	Hides. (d)	Gold.	All Groups.
1960-61	390	335	229	398	(e)	461	(f)342	324	296	179	(f)351
1961—											
April ..	430	337	210	393	(e)	462	347	339	296	178	(f)367
May ..	430	336	209	392	(e)	458	(f)347	325	283	178	(f)366
June ..	422	335	209	384	(e)	525	(f)346	320	275	178	(f)364

(a) Silver, copper, tin, zinc, lead. (b) Beef, lamb, mutton, pork. Guaranteed minimum prices are used when operative. (c) Sultanas, raisins, currants. (d) Cattle hides, calfskins. (e) Actual price realized not yet fully known; provisional series are included in "All Groups" Indexes which are subject to revision. (f) Preliminary.

Revised figures for Dried Fruits for the year 1959-60 and the months July, 1960, to March, 1961, respectively, were:—349, 326, 329, 338, 341, 345, 348, 346, 346, 347. The All Groups figures remained unchanged except for a variation of one point in two months.

§ 21. The Australian Balance of Payments.

The tables in this section show revised balance of payments estimates for the years 1958-59, 1959-60, and preliminary estimates for 1960-61. Further details will be found in the mimeograph publication *The Australian Balance of Payments, 1956-57 to 1960-61*.

Current Account, p. 517.—Revised estimates of the balance of payments on current account for the years 1958-59, 1959-60 and preliminary estimates for 1960-61 are shown in the following table:—

BALANCE OF PAYMENTS ON CURRENT ACCOUNT: AUSTRALIA.
(£A. million.)

Particulars.	1958-59.	1959-60.	1960-61.(a)
CREDITS.			
1. Exports f.o.b.(b)	810.3	937.4	936.7
2. Gold Production	16.8	16.4	16.4
3. Transportation—			
Oversea ships' expenditure ..	71.0	77.0	86.0
Other	7.6	8.7	9.0
4. Travel	8.0	9.9	13.5
5. Income from Investment—			
Undistributed Income ..	2.5	3.3	5.0
Other	22.1	23.6	25.9
6. Government	19.7	26.3	25.2
7 Miscellaneous	8.7	9.5	13.0
8. Donations, etc.—			
Immigrants' Funds, etc. ..	19.6	21.7	24.7
Other	7.4	8.9	9.2
<i>Total Credits</i>	<i>993.7</i>	<i>1,142.7</i>	<i>1,164.6</i>
DEBITS.			
9. Imports f.o.b.(b)	796.3	946.3	1,083.7
10. Transportation(c)—			
Freight	115.0	127.0	150.0
Other	18.8	20.9	23.0
11. Travel	28.6	36.3	41.7
12. Income from Investment—			
Public Authority Interest ..	25.1	26.9	29.0
Direct Investment	43.1	45.9	43.0
Undistributed Income ..	63.3	69.2	70.0
Other	11.0	7.6	9.0
13. Government—			
Defence	11.9	16.6	17.1
Papua and New Guinea ..	13.4	15.7	17.9
Other	14.4	16.0	17.6
14. Miscellaneous	32.3	36.8	35.1
15. Donations, etc.—			
Personal	15.2	15.0	16.2
Colombo Plan, etc. ..	4.1	4.1	4.5
Other	8.9	10.5	10.6
16. Import Valuation Adjustment(d) ..	-23.0	-30.0	-35.0
<i>Total Debits</i>	<i>1,178.4</i>	<i>1,364.8</i>	<i>1,533.4</i>
Balance on Current Account	-184.7	-222.1	-368.8

(a) Preliminary. (b) The amounts shown represent the recorded trade totals adjusted in respect of coverage for purposes of balance of payments estimates. (c) Total freight and insurance on imports, whether payable overseas or in Australia, is estimated at £115,000,000 in 1958-59, £127,000,000 in 1959-60, and £151,000,000 in 1960-61. (d) The estimated difference between the value of imports as recorded in statistics of overseas trade (based on value for duty) and the actual selling price to the importer.

Capital Account, p. 518.—The following table shows revised estimates of Australia's balance of payments on capital account for the years 1958-59, 1959-60 and preliminary estimates for 1960-61.

BALANCE OF PAYMENTS ON CAPITAL ACCOUNT: AUSTRALIA.
(£A. million.)

Particulars.	1958-59.		1959-60.		1960-61.(a)	
CHANGES IN ASSETS.						
1. International Reserves	-9.0		-4.4		38.8
2. International Agencies—						
I.M.F.	44.6		44.6	..	
I.B.R.D., I.D.A., I.F.C.	44.6	5.9	50.5	2.1	2.1
3. Other Official	-6.0		-8.5		4.8
4. Marketing Authorities	6.0		0.5		2.5
5. Portfolio Investment	-1.4		-4.4		*
6. Direct Investment—						
Branches—						
Unremitted Profits	1.1		-0.3	0.5	
Other	4.2		1.2	*	
Subsidiaries—						
Undistributed Profits	1.4		3.6	4.5	
Other	4.6	11.3	3.3	7.8	5.0b
<i>Total—Change in Assets</i>		45.5		41.5		53.2
CHANGES IN LIABILITIES.						
7. Official Loans—						
I.B.R.D.	2.2		-7.2	-7.6	
Other Commonwealth	11.4		36.7	1.2	
States	22.1		6.0	19.6	
Other	-0.2		-0.2	-0.4	
Discounts, etc.	-0.7	34.8	-0.5	34.8	11.7
8. International Agencies—						
I.M.F.	27.1		33.4	78.2	
I.B.R.D., I.D.A.	-2.8	24.3	2.4	35.8	76.9
9. Foreign Banks		1.0		-0.9	0.5
10. Portfolio Investment—						
Government Securities	-4.5		-2.3	*	
Companies, etc.	19.7	15.2	34.8	32.5	*
11. Direct Investment—						
Branches—						
Unremitted Profits	11.6		9.5	10.0	
Other	9.8		22.0	*	
Subsidiaries—						
Undistributed Profits	51.7		59.7	60.0	
Other	32.4	105.5	63.9	155.1	70.0b
12. Life Assurance	-5.0		-2.4		-0.2
13. Balancing Item	{ 54.4		8.7		..
			263.1c
<i>Total—Change in Liabilities</i>		230.2		263.6		422.0
Balance on Capital Account		184.7		222.1		368.8

(a) Preliminary. (b) Excludes items marked (*) for which information is not available and which are therefore included in the balancing item. (c) Includes items marked (*).

Balance of Payments on Current Account—Monetary Areas and Regions, p. 519.—
Revised estimates of Australia's regional balance of payments are shown in the following
tables for the years 1958–59, 1959–60, together with preliminary estimates for 1960–61.

BALANCE OF PAYMENTS ON CURRENT ACCOUNT: AUSTRALIA.
MONETARY AREAS AND REGIONS.(a)

(£A. million.)

Particulars.	1958–59.	1959–60.	1960–61.(b)
Exports f.o.b.—			
Sterling—			
United Kingdom	261.5	246.3	208.5
Other	149.7	169.8	178.6
Non-Sterling—			
U.S.A. and Canada	78.1	91.8	89.3
European Economic Community ..	145.1	179.3	158.9
European Free Trade Association(c)	8.7	8.6	8.8
Soviet Area	31.1	52.1	66.2
Other	136.1	189.5	226.4
Total	810.3	937.4	936.7
Imports f.o.b.—			
Sterling—			
United Kingdom	— 309.6	— 331.9	— 340.1
Other	— 131.7	— 152.7	— 152.3
Non-Sterling—			
U.S.A. and Canada	— 131.7	— 200.0	— 261.9
European Economic Community ..	— 85.5	— 109.3	— 128.0
European Free Trade Association(c)	— 31.2	— 36.1	— 44.1
Soviet Area	— 7.5	— 9.0	— 9.8
Other	— 99.1	— 107.3	— 147.5
Total	— 796.3	— 946.3	— 1,083.7
Invisibles (Net)—			
Sterling—			
United Kingdom	— 70.6	— 71.7	— 73.6
Other	— 41.5	— 44.9	— 40.2
Non-Sterling—			
U.S.A. and Canada	— 86.2	— 101.0	— 107.4
European Economic Community ..	— 17.3	— 20.4	— 21.9
European Free Trade Association(c)	— 0.5	— 1.6	— 0.2
Soviet Area	— 0.5	— 1.0	— 1.1
Other	— 14.9	— 14.9	— 21.2
International agencies	— 7.0	— 7.3	— 7.6
Gold production	16.8	16.4	16.4
Total	— 221.7	— 243.2	— 256.8
Balance on Current Account—			
Sterling—			
United Kingdom	— 118.7	— 157.3	— 205.2
Other	— 23.5	— 27.8	— 13.9
Non-Sterling—			
U.S.A. and Canada	— 139.8	— 209.2	— 280.0
European Economic Community ..	42.3	49.6	9.0
European Free Trade Association(c)	— 23.0	— 25.9	— 35.5
Soviet Area	23.1	42.1	55.3
Other	22.1	67.3	57.7
International Agencies	— 7.0	— 7.3	— 7.6
Gold Production	16.8	16.4	16.4
Import Valuation Adjustment ..	23.0	30.0	35.0
Total	— 184.7	— 222.1	— 368.8

(a) For countries included in major groups see page 496.
the United Kingdom.

(b) Preliminary.

(c) Excludes

CHAPTER XIV.—TRANSPORT AND COMMUNICATION.

A. SHIPPING.

§ 3. Oversea Shipping.

Total Oversea Shipping, States, p. 522.—The following table shows particulars of the entrances and clearances of vessels direct from, and to, overseas countries during 1960–61.

OVERSEA SHIPPING: ENTRANCES AND CLEARANCES
OF VESSELS DIRECT, 1960-61.(a)

Particulars.		N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	Aust.
Entrances	No.	1,160	519	474	255	873	60	41	3,382
	'000 net tons	5,635	3,450	1,715	1,034	5,129	218	79	17,260
Clearances	No.	963	477	679	278	928	42	33	3,400
	'000 net tons	4,856	3,123	2,556	1,117	5,147	196	69	17,064

(a) Preliminary.

§ 6. Shipping Cargo.

Overseas and Interstate Cargo, p. 529.—The following table shows the quantity of shipping cargo discharged and shipped, according to States, during 1960–61.

CARGO DISCHARGED AND SHIPPED: STATES, 1960-61.(a)
(’000 Tons.)

State, etc.	Discharged.				Shipped.			
	Oversea.		Interstate.		Oversea.		Interstate.	
	wt.	meas.	wt.	meas.	wt.	meas.	wt.	meas.
New South Wales	6,259	1,334	6,180	199	4,473	386	4,219	137
Victoria	5,707	1,601	2,294	611	1,951	515	1,479	528
Queensland	459	318	1,151	161	1,493	121	548	123
South Australia	552	400	2,093	83	2,000	211	4,778	58
Western Australia	3,833	123	586	65	3,478	181	2,285	57
Tasmania	367	26	761	501	105	138	386	565
Northern Territory	87	..	57	..	19	..	9	..
Australia	17,264	3,802	13,122	1,620	13,519	1,552	13,704	1,468

(a) Preliminary.

B. GOVERNMENT RAILWAYS.

Summary of Operations, pp. 535-42.—The following table shows a summary of the operations of Government railways for the nine months ended March, 1961.

GOVERNMENT RAILWAYS: SUMMARY OF OPERATIONS,
NINE MONTHS ENDED MARCH, 1961.

Particulars.	C'with.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Aust.
				(a)	(b)	(b)		
Route Miles open	2,252	6,108	4,292	6,255	2,533	4,120	538	26,098
Train-miles	'000 1,751	28,817	13,546	13,584	5,147	5,796	1,140	69,781
Earnings (c)—								
Coaching (Passengers, Parcels, Mails, etc.)	£'000 838	19,974	10,242	4,385	1,562	1,248	144	38,393
Goods, including Livestock and Minerals	3,440	47,165	20,218	22,564	7,764	10,087	1,849	113,087
Miscellaneous	362	214	2,143	(d)	674	709	60	4,162
Total Earnings (c)	4,640	67,353	32,603	26,949	10,000	12,044	2,053	155,642
Working Expenses	£'000 3,340	57,396	30,499	28,327	(e) 11,351	11,598	2,382	144,893
Net Earnings	1,300	9,957	2,104	—1,378	—1,351	446	—329	10,749
Ratio of Working Expenses to Earnings	% 71.98	85.22	93.55	105.11	113.51	96.30	116.03	93.09
Earnings per Train-mile	52s. 10d.	46s. 7d.	48s. 1d.	39s. 7d.	38s. 9d.	41s. 6d.	36s. 1d.	44s. 6d.
Working Expenses per Train-mile	38s. 2d.	39s. 8d.	45s. 0d.	41s. 7d.	44s. 2d.	40s. 0d.	41s. 8d.	41s. 6d.
Passenger-journeys	'000 223	190,204	112,635	22,889	11,012	9,551	1,622	348,136
Freight Carried—								
Livestock	'000 tons 90	476	227	482	160	113	20	1,568
Coal and Coke	749	7,433	1,962	1,111	103	367	272	11,997
Other Minerals	69	1,844	86	853	844	260	21	3,977
Other Goods	393	8,444	6,001	3,441	1,984	2,725	591	23,579
Total Freight	1,301	18,197	8,276	5,887	3,091	3,465	904	41,121

(a) Excludes South Brisbane-Border section of the uniform gauge line (69 route miles).

(b) Financial details include road motors.

(c) Excludes Government Grants.

(e) Includes depreciation.

(d) Included with coaching.

Minus sign (—) denotes loss.

NOTE.—The foregoing table is prepared from quarterly statements supplied by each Government Railway, and figures therein are not completely comparable with those shown in Chapter XIV.—Transport and Communication, which are derived, in the main, from the Annual Reports of the Government Railways.

E. MOTOR VEHICLES.

Motor Vehicle Registrations, pp. 557-8.—Motor vehicles registered at 30th June, 1961, and new motor vehicles registered during 1960-61 were as follows:—

MOTOR VEHICLES: REGISTRATIONS, 1960-61.

State or Territory.	Number of Motor Vehicles Registered at 30th June, 1961.(a)				Number of New Motor Vehicles Registered, 1960-61.(a) (Revised Series.)(b)			
	Motor Cars.(c)	Commercial Vehicles.(d)	Motor Cycles.	Total.	Motor Cars.(c)	Other Vehicles.	Motor Cycles.	Total.
New South Wales	663,943	336,180	24,396	1,024,519	86,768	21,732	2,034	110,534
Victoria	695,921	176,892	19,331	892,144	66,931	14,873	1,356	83,160
Queensland	257,957	147,286	16,493	421,736	24,540	8,552	1,203	34,295
South Australia	220,221	75,774	16,780	312,775	20,346	5,535	2,062	27,943
Western Australia	138,187	72,145	12,689	223,021	15,159	5,549	1,094	21,802
Tasmania	69,088	26,358	2,622	98,068	6,724	2,056	61	8,841
Northern Territory	5,162	5,116	719	10,997	501	431	22	954
Aust. Capital Territory	14,392	3,899	352	18,643	2,173	441	47	2,661
Total	2,064,871	843,650	93,382	3,001,903	223,142	59,169	7,879	290,190

(a) Excludes Defence Service vehicles, trailers, road tractors, etc., and dealer's plates. (b) This series is not strictly comparable with the Number of Motor Vehicles Registered series, nor with the New Motor Vehicles Registered series on p. 558. It is a more accurate classification of types of vehicles. (c) Includes taxis, hire cars and station wagons. (d) Includes utilities, panel vans, lorries and omnibuses. (e) Registration in Victoria is according to purpose of use and not type of vehicle; consequently, motor car registrations in this series are overstated by the inclusion of commercial vehicles registered for private use.

H. CIVIL AVIATION.

Statistical Summaries, p. 565.—The following table shows particulars of the operations of regular internal services and oversea services during the nine months ended March, 1961.

CIVIL AVIATION: OPERATIONS OF REGULAR INTERNAL SERVICES AND OVERSEA SERVICES, NINE MONTHS ENDED MARCH, 1961.

Particulars.	Regular Internal Services.(a)	Oversea Services.(b)
Route miles (unduplicated)(c)	63,028	73,557
Hours flown	166,189	44,096
Miles flown	31,970	15,046
Paying passengers	1,999,303	222,965
Paying passenger-miles	843,705	642,680
Freight—		
Tons(d)	48,318	5,075
Ton-miles(d)	21,804	23,397
Mail—		
Tons(d)	4,496	1,796
Ton-miles(d)	2,327	8,632

(a) Includes only services operating within the Australian mainland and Tasmania. (b) Airlines wholly or partly owned by Australian interests. (c) At 31st March, 1961. (d) In terms of short tons (2,000 lb.).

J. BROADCASTING AND TELEVISION.

§ 4. Licences, etc.

Broadcast Listeners' and Television Viewers' Licences, p. 583.—Broadcast listeners' licences in force at 30th June, 1961, were as follows:—New South Wales, 825,528; Victoria, 589,437; Queensland, 341,101; South Australia, 249,475; Western Australia, 172,881; Tasmania, 77,420; Australia, 2,255,842. Figures for the Northern Territory and the Australian Capital Territory have been included with those for South Australia and New South Wales respectively.

Television viewers' licences in force at 30th June, 1960, were as follows:—New South Wales, 488,516; Victoria, 401,395; Queensland, 113,954; South Australia, 124,808; Western Australia, 69,628; Tasmania, 18,985; Australia, 1,217,286.

CHAPTER XVIII.—WELFARE SERVICES.

A. COMMONWEALTH EXPENDITURE ON SOCIAL AND HEALTH SERVICES.

§ 2. National Welfare Fund, p. 689.

The following table shows particulars of payments of social and health services in each State during 1960-61.

COMMONWEALTH EXPENDITURE FROM NATIONAL WELFARE FUND
ON SOCIAL AND HEALTH SERVICES, 1960-61.
(£'000.)

Service.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T. (a)	A.C.T. (a)	Over- seas.	Total.
<i>Social Benefits—</i>										
Age and Invalid Pensions	64,147	38,734	24,382	14,269	10,793	5,051	202	205	143	157,926
Child Endowment	26,443	20,344	11,341	7,046	5,701	2,742	253	413	20	74,303
Commonwealth Rehabilitation Service	190	203	98	101	79	22	..	..	..	693
Funeral Benefits	150	92	56	32	26	11	..	..	..	367
Maternity Allowances	1,399	1,069	590	359	284	148	20	24	5	3,898
Unemployment Benefits	1,327	896	1,300	343	479	114	4	6	..	4,469
Sickness Benefits	881	542	340	158	154	67	3	6	..	2,151
Special Benefits(b)	131	234	78	34	22	20	..	1	..	520
Widows' Pensions	5,107	3,329	2,250	1,189	1,052	470	24	32	15	13,468
<i>National Health Services—</i>										
Hospital Benefits	8,729	4,824	2,771	1,786	1,909	575	46	28	..	20,668
Medical Benefits	4,228	2,444	1,073	1,051	885	295	..	..	..	9,976
Medical Benefits for Pensioners	1,882	1,004	546	367	285	108	..	8	..	4,200
Nutrition of Children	1,277	1,018	517	281	224	197	22	24	..	3,560
Pharmaceutical Benefits	7,835	6,316	2,769	1,755	1,316	518	..	(c) 34	..	20,543
Pharmaceutical Benefits for Pensioners	3,250	1,663	1,077	662	499	187	..	..	..	7,338
Rental Rebates	..	..	229	..	123	..	..	..	..	352
Tuberculosis Campaign—										
Allowances	328	198	221	90	58	52	..	..	..	947
Maintenance and Surveys(d)	1,278	1,074	742	402	499	162	..	(e) 22	..	4,179
Miscellaneous(f)	67	55	106	11	20	27	17	(g) 743	..	1,046
Total	128,651	84,039	50,488	29,936	24,406	10,764	591	1,546	183	330,604

(a) Payments for some Health Services to residents of the Northern Territory and the Australian Capital Territory are included in the amounts shown for States. (b) Includes special benefits to migrants in reception and training centres. (c) Includes payments to Bush Nursing Centres and Royal Flying Doctor Service. (d) Paid to the State Governments as a contribution towards the cost of surveys and the maintenance of institutions for the treatment of tuberculosis. (e) Includes cost of manufacturing B.C.G. vaccine for distribution throughout Australia. (f) This item covers the cost of district laboratory services, the free supply of prophylactic materials and biological products (e.g. insulin, poliomyelitis and diphtheria prophylactics), the supply and maintenance of hearing aids for children, subsidies to voluntary organizations conducting home-nursing services, and certain costs associated with the blood transfusion services of the Australian Red Cross Society. (g) Includes £475,000 for the production of poliomyelitis vaccine, £115,422 for running expenses of the Blood Fractionation Plant at the Commonwealth Serum Laboratories, £78,014 for home-nursing services throughout Australia and £23,000 for the production of smallpox vaccine.

B. COMMONWEALTH SOCIAL SERVICES.

§ 2. Age and Invalid Pensions, § 3. Child Endowment, § 6. Maternity Allowances, § 7. Unemployment, Sickness and Special Benefits, § 8. Widows' Pensions, pp. 691-704.

The following table gives a summary of age, invalid and widows' pensions, maternity allowances, child endowment, and unemployment, sickness and special benefits for the year 1960-61.

SOCIAL SERVICES: SUMMARY, 1960-61.

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
<i>Age Pensioners at end of year—</i>									
Males	69,830	43,058	30,578	16,01	11,931	5,256	367	238	177,271
Females	152,467	100,578	58,566	35,976	25,725	11,296	401	510	385,519
Persons	222,297	143,636	89,144	51,989	37,656	16,552	768	748	562,790
<i>Invalid Pensioners at end of year—</i>									
Males	19,855	10,515	7,227	3,748	3,898	1,779	113	69	47,204
Females	18,639	8,919	5,857	3,217	3,047	1,559	115	85	41,438
Persons	38,494	19,434	13,084	6,965	6,945	3,338	228	154	88,642
<i>Child Endowment at end of year—</i>									
Family claims in force	558,040	411,744	213,836	142,663	109,499	52,264	4,306	8,528	1,501,180
Endowed children ..	1,196,088	905,914	503,397	318,996	257,037	124,290	14,421	19,545	3,340,302
<i>Maternity Allowances—</i>									
Claims paid during year	85,751	66,511	35,587	21,774	17,648	9,077	1,215	1,511	a239,384
<i>Unemployment, Sickness and Special Benefits—</i>									
Persons Admitted to Benefit—									
Unemployment Benefit—									
Males	41,636	24,975	37,862	9,338	10,304	3,061	174	410	127,760
Females	11,810	7,151	7,859	3,205	2,291	934	38	65	33,353
Persons	53,446	32,126	45,721	12,543	12,595	3,995	212	475	161,113
Sickness Benefit—									
Males	16,412	9,968	7,823	3,703	4,073	1,497	87	140	43,703
Females	5,896	3,841	2,289	1,057	939	397	14	48	14,481
Persons	22,308	13,809	10,112	4,760	5,012	1,894	101	188	58,184
Special Benefit—									
Ordinary—									
Males	588	350	585	140	65	47	2	4	1,781
Females	544	1,241	170	77	57	55	..	3	2,147
Persons	1,132	1,591	755	217	122	102	2	7	3,928
Migrants—									
Persons	836	8,844	40	353	..	..	..	..	10,073
Persons on benefit at end of year—									
Unemployment benefit—									
Males	15,177	12,795	7,612	2,940	2,749	1,060	11	135	42,479
Females	4,397	3,294	2,020	1,102	668	276	3	15	11,775
Persons	19,574	16,089	9,632	4,042	3,417	1,336	14	150	54,254
Sickness Benefit—									
Males	2,499	1,472	1,013	507	512	193	7	25	6,228
Females	875	649	387	152	165	76	1	3	2,308
Persons	3,374	2,121	1,400	659	677	269	8	28	8,536
Special Benefit—									
Ordinary—									
Males	189	158	103	39	48	18	1	1	557
Females	497	757	251	100	100	90	..	4	1,799
Persons	686	915	354	139	148	108	1	5	2,356
Migrants—									
Persons	141	939	2	34	..	..	..	..	1,116
Benefits paid—									
Unemployment ..	£ 1,326,725	895,640	1,299,615	342,835	479,159	114,528	3,795	6,235	4,468,532
Sickness	£ 880,888	542,147	340,665	158,428	153,348	66,762	3,184	6,057	2,151,479
Special(b)	£ 131,430	233,762	77,994	34,435	22,196	19,392	16	682	519,907
Total(b)	£ 2,339,043	1,671,549	1,718,274	535,698	654,703	200,682	6,995	12,974	7,139,918
<i>Widows' Pensions at end of year—</i>									
Pensions in force ..	21,812	13,311	8,994	4,897	4,348	1,849	104	121	55,436
Class "A" pensions in force(c)	9,891	5,394	4,291	2,089	1,749	959	52	66	24,491

(a) Includes claims paid overseas. (b) Includes payments to migrants. (c) Pensions paid to widows who maintain at least one child under 16 years of age.

CHAPTER XX.—PRIVATE FINANCE:

A. CURRENCY.

§ 2. Coinage.

Issues of Australian Coins, p. 752.—The net issues of Australian coins to 30th June, 1961, were:—silver, £41,224,000; bronze, £3,345,000; total, £44,569,000.

§ 3. Notes.

The Australian Note Issue, p. 754.—The average value of notes in circulation for the year 1960–61 was £430,237,000. This amount was distributed in denominations as follows:—10s., £12,236,000; £1, £69,983,000; £5, £192,789,000; £10, £152,302,000; £20, £2,000; £50, £32,000; £100, £37,000; and £1,000, £2,856,000. The amount held by the banks was £57,111,000 and by the public £373,126,000.

B. BANKING.

§ 1. Cheque-Paying Banks.

Reserve Bank, p. 758.—The average liabilities of the Central Banking Business (including Note Issue Department) of the Reserve Bank for the year ended June, 1961, amounted to £1,031,804,000. Capital and Reserve Funds amounted to £22,790,000; Notes on Issue to £427,710,000; Statutory Reserve Deposit Accounts of Trading Banks to £294,409,000; Other Deposits of Trading Banks to £18,478,000; Deposits of Savings Banks to £138,285,000; Other Liabilities to £130,132,000.

Particulars of the average assets were as follows:—Gold and Balances held abroad, £365,696,000; Australian Notes and Coin, £6,280,000; Cheques and Bills of other Banks, £1,956,000; Government and Other Securities (including Treasury Bills), £571,279,000; Bills Receivable and Remittances in Transit, £5,749,000; and Other Assets, £80,844,000.

Commonwealth Trading Bank, p. 764.—The average liabilities in Australia of the Commonwealth Trading Bank for the year ended June, 1961, were £274,825,000. Of this amount, Fixed Deposits amounted to £72,876,000 and Current Deposits (including Current Deposits bearing interest £14,423,000) to £198,280,000; Balances due to other Banks to £1,080,000; Other Liabilities to £2,589,000.

The average assets in Australia, £280,971,000, included Cash and Cash Balances £10,518,000; Treasury Bills and Seasonal Securities, £1,592,000; Other Commonwealth and State Government Securities, £54,007,000; Loans to Authorized Dealers in the Short Term Money Market, £4,640,000; Statutory Reserve Deposits with Reserve Bank, £45,835,000; Cheques, Bills and Balances with other Banks, £5,595,000; Loans (other than Loans to Authorized Dealers in the Short Term Money Market), Advances and Bills Discounted, £147,566,000; Other Assets, £11,218,000.

Private Trading Banks, p. 767.—Average liabilities in Australia of the Private Trading Banks for the year ended June, 1961, were £1,507,651,000. Fixed Deposits amounted to £333,886,000 and Current Deposits (including Current Deposits bearing interest, £88,307,000) to £1,123,599,000; Balances due to other Banks to £21,752,000; Other Liabilities to £28,414,000.

The average assets in Australia, £1,547,148,000, included Cash and Cash Balances, £61,913,000; Treasury Bills and Seasonal Securities, £20,733,000; Other Commonwealth and State Government Securities, £174,422,000; Loans to Authorized Dealers in the Short

Term Money Market, £18,971,000; Statutory Reserve Deposits with Reserve Bank, £248,038,000; Cheques, Bills and Balances with other Banks, £25,890,000; Loans (other than Loans to Authorized Dealers in the Short Term Money Market), Advances and Bills Discounted, £902,465,000; Other Assets, £94,716,000.

Classification of Advances within Australia—Commonwealth Trading Bank and Private Trading Banks, p. 771.—Advances within Australia at the end of June, 1961, dissected by industries were:—*Resident Borrowers*: Business Advances—Agriculture, Grazing and Dairying, £225,283,000; Manufacturing, £228,120,000; Transport, Storage and Communication, £14,338,000; Finance, £72,207,000; Commerce, £217,386,000; Building and Construction, £25,252,000; Other Business and Services, £72,104,000; Unclassified, £5,692,000; Total Business Advances, £860,382,000; Advances to Public Authorities, £14,066,000; Personal advances, £145,071,000; Advances to Non-Profit Organizations, £19,287,000; *Total Resident Borrowers*, £1,038,806,000; *Total Non-Resident Borrowers*, £287,000; *Total advances*, £1,039,093,000.

Clearing House Returns, p. 775.—The average weekly bank clearings in each capital city for the year ended June, 1961, were as follows:—Sydney, £190,929,000; Melbourne, £172,942,000; Brisbane, £40,263,000; Adelaide, £35,773,000; Perth, £23,255,000; Hobart, £7,122,000; Total, £470,284,000.

Debits to Customers' Accounts—All Cheque-paying Banks, p. 775.—The average weekly debits to customers' accounts in each State for the year 1960–61 for all cheque-paying banks (excluding debits to accounts of Australian Governments in capital cities) were as follows:—New South Wales, £322,214,000; Victoria, £297,670,000; Queensland, £85,430,000; South Australia, £55,645,000; Western Australia, £37,582,000; Tasmania, £16,449,000; Northern Territory, £1,124,000; Australian Capital Territory, £4,006,000; Total, £820,120,000.

§ 2. Savings Banks.

All Savings Banks, p. 777.—The numbers of operative accounts in the several States at end of June, 1961, were:—New South Wales, 3,151,000; Victoria, 2,822,000; Queensland, 1,187,000; South Australia, 963,000; Western Australia, 578,000; Tasmania, 317,000; Northern Territory, 17,000; and Australian Capital Territory, 39,000; Total, 9,074,000. The amounts on deposit in the several States at 30th June, 1961, were:—New South Wales, £569,151,000; Victoria, £517,468,000; Queensland, £187,131,000; South Australia, £166,743,000; Western Australia, £80,712,000; Tasmania, £47,388,000; Northern Territory, £2,726,000; and Australian Capital Territory, £6,132,000; Total, £1,577,451,000. Total excess of deposits over withdrawals during 1960–61 was £10,050,000 and interest added was £44,697,000.

D. INSURANCE.

§ 2. Life Assurance.

Life Assurance, p. 789.—The following is a summary of the life assurance business transacted in Australia during 1960 (figures for 1959 in parentheses) compiled from monthly returns collected from the 37 (30) companies registered under the Life Insurance Act 1945–1959, and excluding the Government Insurance Office of New South Wales and the Queensland State Government Insurance Office which operate only within their respective States. Particulars shown are therefore not entirely comparable with those in Chapter XX., which are derived from annual returns and include business of the State Government Offices.

Ordinary Department and Industrial Department, respectively:—New Policies issued in Australia—Number, 447,086 (347,707), 187,608 (189,282); Sum Assured, £799,641,000 (£609,669,000), £39,772,000 (£32,338,000); Policies Matured or Otherwise Discontinued in Australia—Number, 283,848 (199,633), 296,813 (273,916), Sum Assured, £245,691,000 (£182,464,000), £29,182,000 (£28,211,000). Particulars of annuities are excluded.

Premium receipts of Ordinary and Industrial Departments in Australia in 1960 amounted, respectively, to £112,152,000 (£100,465,000) and £15,562,000 (£15,412,000). Claims, etc., paid amounted to £46,315,000 (£38,884,000) and £12,351,000 (£10,695,000), respectively. Particulars of annuities are included.

CHAPTER XXI.—PUBLIC FINANCE.

A. COMMONWEALTH FINANCE.

Consolidated Revenue Fund, pp. 810 and 819.—The table below shows details of revenue and expenditure for the year 1960–61.

COMMONWEALTH CONSOLIDATED REVENUE FUND: REVENUE AND EXPENDITURE, 1960–61.

(£'000.)

Revenue.		Expenditure.	
Item.	Amount.	Item.	Amount.
<i>Taxation—</i>		Defence Services	162,376
Customs	101,823	War and Repatriation Services	149,331
Excise	257,297	Subsidies and Bounties ..	17,562
Sales Tax	173,016	Departmental	149,755
Income Taxes	807,266	National Welfare Fund—	
Pay-roll Tax	61,260	Expenditure on Social Services	330,604
Estate Duty	14,807		
Other Taxes	9,672	<i>Business Undertakings—</i>	
<i>Total</i>	1,425,141	Postmaster-General's Department	110,136
<i>Business Undertakings—</i>		Broadcasting and Television	
Postmaster-General's Department	136,165	Services	11,372
Broadcasting and Television		Railways	4,615
Services	11,553	<i>Total</i>	126,123
Railways	6,149	Territories	26,839
<i>Total</i>	153,867	<i>Capital Works and Services—</i>	
		Defence Services	38,282
<i>Territories</i>	5,455	Business Undertakings	44,822
<i>Other Revenue</i>	53,816	Other	92,728
		<i>Total</i>	175,832
		Payments to or for States ..	357,296
		Loan Consolidation and Investment Reserve	142,561
<i>Grand Total</i>	1,638,279	<i>Grand Total</i>	1,638,279

C. COMMONWEALTH AND STATE FINANCE.

Revenue and Expenditure, p. 851.—Preliminary information relating to Commonwealth and State revenue and expenditure during 1960-61 is given below.

COMMONWEALTH AND STATE REVENUE AND EXPENDITURE, 1960-61.
(£'000.)

Government of—	Consolidated Revenue Fund.			Loan Fund— Net Expenditure on Works and Services.
	Revenue.	Expenditure.	Surplus (+) or Deficit (—)	
New South Wales	(a)283,719	(a)283,855	— 136	60,076
Victoria	185,101	184,931	+ 170	48,588
Queensland	108,817	109,435	— 618	23,853
South Australia	81,979	80,791	+ 1,188	26,543
Western Australia	69,333	70,537	— 1,204	18,643
Tasmania	26,886	27,084	— 198	15,242
<i>Six States</i>	755,835	756,633	— 798	192,945
<i>Commonwealth</i>	1,638,279	1,638,279	..	41,640
Grand Total—Unadjusted	2,394,114	2,394,912	— 798	234,585
Adjusted(b)	2,084,959	2,085,757	— 798	234,585

(a) Represents the combined transactions of the Consolidated Revenue Fund and the Business Undertakings—Railways, Tramways and Omnibuses and Sydney Harbour Section of the Maritime Services Board—included in the annual Budget Papers. Adjustments have been made to exclude duplications.
(b) To avoid duplication in aggregating particulars for the Commonwealth and States, the grand totals have been adjusted to exclude State payments to the Commonwealth in respect of pay-roll tax and Commonwealth payments to the States included in State Consolidated Revenue Funds in respect of interest on State debts, special grants, uniform taxation, special financial assistance, grants to universities, tuberculosis, capital expenditure and National Welfare payments. There are other relatively minor payments for which adjustments have not been made and the adjusted figures are therefore still slightly overstated.

D. COMMONWEALTH AND STATE GOVERNMENT SECURITIES.

§ 3. Commonwealth and State Government Securities on Issue.

Securities on Issue and Annual Interest Payable, p. 856.—The following table shows details of the Commonwealth and State Government Securities on Issue and the annual interest payable thereon at 30th June, 1961.

COMMONWEALTH AND STATE GOVERNMENT SECURITIES ON ISSUE AND
ANNUAL INTEREST PAYABLE AT 30th JUNE, 1961.

Particulars.	Maturing in—					Total.
	Australia.	London.	New York.	Switzerland.	Canada.	
	£A'000.	£Stg.'000.	£'000.(a)	£'000.(b)	£'000.(a)	£'000.

SECURITIES ON ISSUE.

<i>Commonwealth—</i>						
War (1914-18)	52,804	7,534	..	..	..	60,338
War (1939-45)	887,305	5,655	..	..	..	892,960
Works and other purposes	386,345	62,150	74,152	19,367	3,273	545,287
Total	1,326,454	75,339	74,152	19,367	3,273	1,498,585
<i>States</i>	2,389,864	266,691	36,629	5,135	3,445	2,701,764
Grand Total	3,716,318	342,030	110,781	24,502	6,718	4,200,349

ANNUAL INTEREST PAYABLE.

Commonwealth	43,277	3,394	3,409	795	143	51,018
States	104,072	10,355	1,623	231	198	116,479
Grand Total	147,349	13,749	5,032	1,026	341	167,497

(a) £ payable in dollars which have been arbitrarily converted to £ at the rate of 84.8665 to £1.
(b) Loan raised in Switzerland has been converted to £ at the rate of 1,000 Swiss francs to £102 1s. 10d. as provided in Loan Agreement.

§ 4. Commonwealth Loan Raisings.

Loans Raised, p. 865.—Particulars of loans raised by the Commonwealth between 1st July, 1960, and 30th June, 1961, are given in the following table.

COMMONWEALTH LOANS RAISED, 1960-61.(a)

Month of Raising.	Where Raised.	Amount Invited.	Amount Subscribed.	Rate of Interest. (b)	Year of Maturity.	Purpose.
		£'000.	£'000.	%		
1960-61—						
July, 1960 ..	London ..	13,925	13,925	6	1977-80	Conversion
September, 1960	Australia ..	30,000	12,569	4½	1962	Advances for housing, £24,000
			6,847	4½	1969	
			13,541	5	1982	State purposes, £32,933,000
September, 1960	Australia ..	157,991	19,286	4½	1962	Conversion
			31,724	4½	1969	
			52,954	5	1982	
			c 7,172	4½-5	1968	
September, 1960	New York ..	5,137	5,137	5½	1980	Advances for housing, £830,000
						State purposes, £4,307,000
January, 1961 ..	London ..	20,000	10,000	6	1975	Conversion
February, 1961	Australia ..	35,000	10,000	6	1981-83	
			23,638	5½	1963	Advances for housing, £4,000
			3,692	5½	1970	State purposes, £34,910,000
			7,584	5½	1981	Advances for housing, £991,000
March, 1961 ..	Switzerland ..	6,126	6,126	4½	1971-76	State purposes, £5,135,000
						Advances for housing, £665,000
March, 1961 ..	Canada ..	4,110	4,110	5½	1981	State purposes, £3,445,000
						Advances for housing, £9,000
May, 1961 ..	Australia ..	25,000	29,747	5½	1963	State purposes, £34,501,000
			1,338	5½	1970	Redemption, £5,000,000
			8,425	5½	1981	
May, 1961 ..	Australia ..	179,210	82,274	5½	1963	Conversion
			26,214	5½	1970	
			48,178	5½	1981	
			(c) 989	4½-5½	1968	
			55,000	5½	1963	War (1939-45) etc., £1,304,000
June, 1961 ..	Australia ..	90,000	10,000	5½	1970	Advances for housing, £31,614,000
			25,000	5½	1981	State purposes, £57,082,000
						War (1939-45) etc., £2,216,000
July—June (Special Bonds)	Australia ..	..	19,097	4-5½	1963-68	Advances for housing, £1,501,000
						State purposes, £7,783,000
						Redemption, £7,597,000

(a) In addition, during 1960-61, \$3,517,000 and \$2,000,000 were raised in New York for Qantas Empire Airways and the Australian National Airlines Commission respectively. (b) Australian loans bearing interest at 5 per cent. were issued at par and those at other rates were issued at prices ranging from par to £98 15s. In 1960-61, the New York loan was issued at £98, the Swiss loan at £100 and the Canadian loan at £98 10s. (c) Special Bonds.

CHAPTER XXIII.—PASTORAL PRODUCTION.

Livestock Numbers, p. 947.—The following table shows, for each State, the numbers of livestock at 31st March, 1961.

LIVESTOCK NUMBERS, 31st MARCH, 1961.(a)
(‘000.)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
Horses ..	193	64	224	27	40	9	40	1	598
Dairy Cattle ..	1,281	1,717	1,213	248	224	215	..	3	4,901
Beef Cattle ..	2,961	1,147	5,788	313	876	180	1,128	9	12,402
Sheep ..	68,087	26,620	22,125	14,952	17,151	3,439	14	278	152,666
Pigs ..	455	318	448	144	176	71	4	..	1,616

(a) Preliminary, subject to revision.

Production of Meat, pp. 953, 958 and 993.—The following table shows for each State the production of meat during 1960–61.

PRODUCTION OF MEAT, 1960-61.(a)

(*000 Tons Carcass Weight.)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
Beef and Veal ..	169.8	127.1	247.0	27.9	40.8	18.6	5.3	1.5	638.0
Mutton and Lamb	195.9	207.0	44.5	49.4	46.3	19.5	0.1	1.4	564.1
Total Meat (incl. Pigmeats) ..	394.2	359.8	318.5	86.9	97.7	43.4	5.6	3.1	1,309.2

(a) Subject to revision.

CHAPTER XXIV.—FARMYARD, DAIRY AND BEE PRODUCTS.

Principal Farmyard and Dairy Products, pp. 981 and 993.—Particulars of the total production of these products in each State during 1960–61 are shown below.

PRINCIPAL FARMYARD AND DAIRY PRODUCTS, 1960-61.(a)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust. (b)
Total Whole Milk								
('000 gals.)	320,422	599,482	212,402	84,114	58,458	63,604	1,008	1,339,490
Butter(c) ..	35,380	90,034	31,393	6,796	7,776	10,403	2	181,784
Cheese(c) ..	5,296	19,869	7,223	12,545	1,367	390	..	46,690
Pigmeats ..	28,483	25,745	27,000	9,603	10,587	5,267	232	107,058

(a) Subject to revision.

(b) Includes Northern Territory.

(c) Factory and farm production.

CHAPTER XXVII.—MINERAL INDUSTRY.

§ 3. Mineral Production.

Quantity and Value of Production, pp. 1044-77.—In the table hereunder, particulars are given of the quantity and value of production in Australia of the principal minerals during the year 1960.

MINERAL PRODUCTION: QUANTITIES AND VALUES, AUSTRALIA, 1960.(a)

METALLIC MINERALS.

Year.	Principal Contents of Metallic Minerals Produced.							Total Value of Output of Metal Mining.
	Copper.	Gold.	Iron.	Lead.	Silver.	Tin.	Zinc.	
	Tons.	Fine oz.	'000 tons.	Tons.	'000 fine oz.	Tons.	Tons.	£'000.
1960 ..	109,767	1,086,317	2,814	308,165	15,175	2,282	290,225	84,518

(a) Subject to revision.

MINERAL PRODUCTION: QUANTITIES AND VALUES, AUSTRALIA, 1960.(a)
—continued.

NON-METALLIC AND FUEL MINERALS.

Year.	Quantities Produced.						Total Value of Output of Non-metal and Fuel Mining.
	Coal.		Gypsum.	Limestone. (b)	Mica.	Salt.	
	Black.	Brown.					
1960	'000 tons. 22,561	'000 tons. 14,967	Tons. 572,830	'000 tons. 5,713	lb. 656,412	Tons. 467,372	£'000. 72,441

(a) Subject to revision.

(b) Excludes limestone used as a construction material.

§ 4. Gold, § 5. Lead, Silver, Zinc, § 6. Copper, § 7. Tin,
pp. 1050, 1056, 1060 and 1062.

Smelter and refinery production of the principal metals treated in Australia during the year 1960 is shown below.

SMELTER AND REFINERY PRODUCTION OF PRINCIPAL METALS: AUSTRALIA, 1960.

Year.	Refined Gold.	Refined Silver. (a)	Refined Lead. (a)	Lead Content of Lead Bullion Produced for Export. (a)	Refined Zinc. (a)	Refined Copper. (a)	Refined Tin. (a)
1960	'000 fine oz. 1,188	'000 fine oz. 8,085	Tons. 189,823	Tons. 52,723	Tons. 120,230	Tons. 70,652	Tons. 2,271

(a) Source: Bureau of Mineral Resources.

CHAPTER XXIX.—REPATRIATION.

§ 2. War Pensions, § 3. Service Pensions, pp. 1109-1114.

The following table gives a summary of war and service pensions current at 30th June 1961, and of the amounts paid in pensions during the year 1960-61.

WAR AND SERVICE PENSIONS: SUMMARY, 1960-61.

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Over-seas.	Total.
<i>War Pensions—</i>								
Pensioners at end of year ..	220,773	190,111	92,648	67,484	57,123	28,305	4,846	661,290
Amount paid during year ..	£ 20,266,212	£ 18,321,956	£ 8,916,007	£ 5,686,305	£ 4,654,876	£ 2,582,986	£ 622,560	£ 61,050,902
<i>Service Pensions—</i>								
Pensioners at end of year ..	16,292	11,902	8,490	5,211	6,101	2,306	..	50,302
Amount paid during year ..	£ 2,734,907	£ 1,730,645	£ 1,213,000	£ 762,677	£ 1,051,198	£ 290,311	..	£ 7,782,738

LIST OF SPECIAL ARTICLES AND MISCELLANEOUS MATTER CONTAINED IN PREVIOUS ISSUES.

This list refers to special articles and other more or less important miscellaneous matter which have appeared in previous issues of the Official Year Book, but which are not included, or are included in abbreviated form only, in the present issue. The list is, in the main, restricted to articles, etc., to which references are not given in the various chapters of this issue.

The figures below indicate, respectively, the number and page of the Official Year Book to which reference is made. In cases where matter was published in more than one previous issue, the volume and page for the last issue containing such matter are given. For possible revisions, however, issues immediately following the one referred to should also be consulted.

SUBJECT.	OFFICIAL YEAR- BOOK No.	PAGE.
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Aborigines, Australian, Former Numbers and Distribution of ..	23	687
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Advisory Council of Science and Industry	11	1195
Aeronautical Telecommunications	44	422
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Australian Capital Territory (See "Canberra", "Federal Capital" and "Seat of Government").		
" Capital Territory (Map)	39	367
" Institute of Anatomy	32	919
" Metal Exchange	12	471
" Population Mortality, Census of 1933	29	928
" Services, 1939-45 War (Enlistments, Casualties, Decora- tions, etc.)	37	1155
" Troops, 1914-18 War (Enlistments, Casualties, Decora- tions, etc.)	16	628
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Cancer in Australia, 1881 to 1910	5	230
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Censuses, Early	15	1083
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SUBJECT.	OFFICIAL YEAR BOOK No.	PAGE.
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